## **U.S. Department of Education**

Washington, D.C. 20202-5335



ECEPD GRANT PERFORMANCE REPORT
CFDA # 84.349A
PR/Award # S349A050047
Budget Period # 1
Report Type: Annual Performance

# \*\*Table of Contents\*\*

## **Forms**

1. Grant Performance Report Cover Sheet (ED 524B) - Revised 2005	e1
Executive Summary	e3
2. Grant Performance Report (ED 524B) Project Status Chart - Section A - 1	e6
3. Grant Performance Report (ED 524B) Project Status Chart - Section A - 1	e8
4. Grant Performance Report (ED 524B) Project Status Chart - Section A - 1	e10
5. Grant Performance Report (ED 524B) Project Status Chart - Section A - 1	e13
6. Grant Performance Report (ED 524B) Project Status Chart - Section A - 1	
7. Grant Performance Report (ED 524B) Project Status Chart - Section A - 1	
8. Grant Performance Report (ED 524B) Project Status Chart - Section A - 2	e21
9. Grant Performance Report (ED 524B) Project Status Chart - Section A - 2	
10. Grant Performance Report (ED 524B) Project Status Chart - Section A - 2	
11. Grant Performance Report (ED 524B) Project Status Chart - Section A - 2	
12. Grant Performance Report (ED 524B) Project Status Chart - Section A - 2	
13. Grant Performance Report (ED 524B) Project Status Chart - Section A - 2	
14. Grant Performance Report (ED 524B) Project Status Chart - Section A - 3	e33
15. Grant Performance Report (ED 524B) Project Status Chart - Section A - 3	e38
16. Grant Performance Report (ED 524B) Project Status Chart - Section A - 3	e39
17. Grant Performance Report (ED 524B) Project Status Chart - Section A - 3	e40
18. Grant Performance Report (ED 524B) Project Status Chart - Section A - 3	e42
19. Grant Performance Report (ED 524B) Project Status Chart - Section A - 3	e45
20. Grant Performance Report (ED 524B) Project Status Chart - Section A - 4	e46
21. Grant Performance Report (ED 524B) Project Status Chart - Section A - 4	e54
22. Grant Performance Report (ED 524B) Project Status Chart - Section A - 4	e55
23. Grant Performance Report (ED 524B) Project Status Chart - Section A - 4	e57
24. Grant Performance Report (ED 524B) Project Status Chart - Section A - 4	e59
25. Grant Performance Report (ED 524B) Project Status Chart - Section A - 5	e66
26. Grant Performance Report (ED 524B) Project Status Chart - Section A - 5	e75
27. Grant Performance Report (ED 524B) Project Status Chart - Section A - 5	e80
28. Grant Performance Report (ED 524B) Project Status Chart - Section A - 5	e83
29. Grant Performance Report (ED 524B) Project Status Chart - Section A - 5	e84
30. Grant Performance Report (ED 524B) Project Status Chart - Section A - 5	e93

31.	Grant Performance Report (ED 524B) Project Status Chart - Section B & C	e94
	Budget Information and 269 Form	e95
	Additional Information and GPRA Report	 e97

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# U.S. Department of Education Grant Performance Report Cover Sheet (ED 524B)

## Check only one box per Program Office instructions.

## |X| Annual Performance Report | | Final Performance Report

#### **General Information**

1. PR/Award #: **S349A050047** 

(Block 5 of the Grant Award Notification.)

2. NCES ID #: 221740

(See Instructions.)

3. Project Title: Project REEL (Ressources for Early Educator Learning)

(Enter the same title as on the approved application.)

4. Grantee Name(Block 1 of the Grant Award Notification.): UNIVERSITY OF TENNESSEE AT

CHATTANOOGA

5. Grantee Address (See Instructions.): 615 McCallie Avenue, Dept. #4905

City: Chattanooga State: TN Zip:37403 Zip+4:2598

6. Project Director: First Name Last Name Title

Sarah Sandefur Co-Director

Phone #: Fax #: Email Address:

(423)425-4776 (423)425-5380 SARAH-

(423)425-4776 (423)425-5380 SANDEFUR@UTC.EDU

#### **Reporting Period Information** (See instructions.)

7. Reporting Period: From: 9/1/2006 To: 8/31/2007 (mm/dd/yyyy)

Budget Expenditures (To be completed by your Business Office. See instructions. Also see Section B.)

8. Budget Expenditures

	Federal Grant Funds	Non-Federal Funds (Match/Cost Share)
a. Previous Budget Period	649,852.00	243,851.00
b. Current Reporting Period	1,453,267.00	956,152.00
c. Entire Project Period (For Final Performance Reports only)	0.00	0.00

**Indirect Cost Information** (To be completed by your Business Office. See instructions.)

9. Indirect Costs

<ul><li>a. Are you claiming indirect costs under this grant?</li><li>b. If yes, do you have an Indirect Cost Rate Agreement approved</li></ul>	IXI Yes II No
by the Federal government?	Il No
<ul> <li>c. If yes, provide the following information:</li> <li>Period Covered by the Indirect Cost Rate Agreement: From: 7. (mm/dd/yyyy)</li> <li>Approving Federal agency: [] ED [X] Other (Please Special Control of the Indirect Cost Rate Agreement: From: 7. (mm/dd/yyyy)</li> </ul>	7/1/2005 To: 6/30/2008
Type of Rate (For Final Performance Reports Only): [] Provi ( <i>Please Specify</i> )	sional [] Final [] Other
d. For Restricted Rate Programs (check one) Are you using a rethat:	restricted indirect cost rate
I Is included in your approved Indirect Cost Rate Agreement IXI Complies with 34 CFR 76.564(c)(2)?	nt?
Human Subjects ( (See instructions.)	
10. Annual Certification of Institutional Review Board (IRB) Appro	oval? [X] Yes [] No
Performance Measures Status and Certification (See instruction	ns.)
11. Performance Measures Status a. Are complete data on performance measures for the current bu Project Status Chart? [X] Yes [] No b. If no, when will the data be available and submitted to the Dep	
12. To the best of my knowledge and belief, all data in this perform correct and the report fully discloses all known weaknesses concern and completeness of the data.	-
	itle: Director of Grants
Signature: D	Date:
<b>Grant Performance Report (ED 524B) Executive Summary Att</b>	achment:
Title: Executive Summary File: P:\Annual Report\S349A050047 EXECUTIVE SUMMARY	<u>'.doc</u>

#### **EXECUTIVE SUMMARY S349A050047**

Project REEL's 2007 (Year 2) Annual Performance Report

#### Highlights of project goals

#### <u>Description of the professional development intervention</u>

Project REEL (Resources for Early Educator Learning) is a partnership between The University of Tennessee at Chattanooga, Signal Centers/Tennessee Child Care Resource & Referral (CCR&R) Network, and the Siskin Children's Institute to provide training, coaching, and materials to 165 early childhood educators (ECEs) across the 11 CCR&R regions in the state. The Project Co-Directors and Project Manager conducted multiple intensive train-the-trainer workshops with pre-/post-tests to prepare the specialists for training/mentoring and to ensure program fidelity. Each of the 11 Project REEL specialists conducted formal training sessions and individual coaching/mentoring with small groups of ECEs for a total of approximately 100 hours, with 18 hours still to be delivered during Year 3 of the grant. The general training components include information and strategies in social-emotional development, oral language development, literacy, and early mathematical (numeracy) development. The specific literacy components in training sessions and individual coaching highlight oral language, phonological awareness, concepts about books & print, alphabetic knowledge, comprehension, name writing/emergent writing, and numeracy. In addition to 28 hours of formal training sessions, 42 hours of intensive individual coaching, and 32 hours of supportive coaching in ECE settings, the participants have each received a 243 page Project REEL manual, \$1,000 of books and materials, texts and training in Creative Curriculum (a foundational curriculum upon which Project REEL built its training and support design), training in goal-setting and self-assessment, and training in assessment instruments to measure children's progress.

#### Goals of the professional development intervention

The two primary goals of Project REEL are to 1) increase the frequency of use of research-based classroom learning experiences that promote language/literacy, numeracy, and social/emotional development among diverse early learners through training and support to ECEs; and to 2) improve the language/literacy, numeracy, and social/emotional readiness of children in low-income areas through research-based training of early childhood educators and parents.

#### Demographic characteristics of the population being served

At the end of Year 2, Project REEL has 165 ECEs from 69 settings in low-income communities across Tennessee's eleven-region CCR&R Network; 68 directors (with 25 directors serving as director/teachers) also participated in program training. Participants' educational background consists of 31% with high school diplomas/GEDs, 7.6% hold CDAs, 36% have some college, 7.6% have associate's degrees, 13% hold bachelor's degrees, and 4.8% achieved a graduate degree.

#### Study design, group assignment, treatment conditions, & attrition

Project REEL is a quasi-experimental, delayed-treatment design. ECEs were assigned to one of two treatment groups. Both groups received training in Creative Curriculum during the first grant year. Group A ECEs received additional training (workshops and coaching) between August and December of 2006. Group B ECEs received their training from February through June 2007. Initially, approximately equal numbers of teachers were randomly assigned to each group within region (11 CCR&R regions in the state of Tennessee) and type of setting (family, infant-toddler, and preschool-preK). ECEs in both Groups A & B by the end of Year 2 had received all but 6 hours of workshops (topical seminars) and 12 hours of peer support group sessions; these will be delivered during Year 3. Before Group A began training, 366 ECEs from 90 settings across Tennessee were recruited to participate in Project REEL (with 90 directors, 31 of whom were acting as director/teachers). At the end of Year 1 (August, 2006), 208 teachers were participating in 72 settings (with 65 directors and 23 of those serving as director/teachers). At the end of Year 2 (August 2007), 165 ECEs in 69 settings completed training (with 68 directors, 25 of whom were serving as director/teachers). To accommodate for attrition, additional ECEs (beyond our ultimate target of 220, or 20 per region) were recruited initially, and new ECEs were added into Group B as necessary once training for Group A teachers had begun.

#### **Outcome achievement**

#### Data collected for teacher knowledge, teacher practice, child outcomes

Teacher knowledge & practice: All teachers were observed by Project REEL specialists using several different instruments prior to any training in Spring 2006, in Fall 2006 (near the beginning of training for Group A), and in Spring 2007 (post-training for Group A and at midpoint in training for Group B). Measurements included the *ELLCO*, the *IDEAL-N* (a grant-created environment checklist examining materials available to teachers to support language, literacy, and numeracy), the *Strategy Checklist* (a grant-created rating scale of research-based strategies to support children's social-emotional, language, literacy, and numeracy development), and *Creative Curriculum Implementation Checklists*. Teachers also completed the *ECTS* 

(a grant-created self-assessment of research-based teaching practices) and pre-/post-training session quizzes to assess knowledge of materials presented in the formal workshops.

Child outcomes: Children aged 3 and older were assessed each fall and spring by independent trained testers using the *PPVT* (oral language, receptive), *EVT* (oral language, productive), PALS Pre-K (letter knowledge & name writing subscales), the *IGDI* (rhyming & alliteration), and the *PUP* (a grant-created numeracy instrument). ECEs also rated children on their social skills/problem behaviors each fall and spring using the *PKBS*, and assessed children aged 4 and older with the *Get Ready To Read Literacy Screening*. Additionally, ECEs assessed children using the *Creative Curriculum Developmental Continuum*, and parents assessed their own children using the *Ages and Stages Questionnaires*.

#### Study findings

Teacher data were analyzed using Analysis of Variance (at a single time comparing Group A and Group B teachers) and Repeated Measures Analysis of Variance (comparing performance in Spring 2006 to Spring 2007). Preliminary analysis of children's data has been conducted using Repeated Measures Analysis of Variance (comparing performance in Fall 2006 to Spring 2007). Further analyses using Hierarchical Linear Modeling will address the issue of children nested within classrooms. Effect sizes (partial eta²) were calculated for Time (comparing earlier and later measures for teachers and children) and for Group (comparing Group A and Group B teachers and children) as well as their interaction, when appropriate. Our broad findings were as follows:

- 1) Project REEL ECEs significantly improved on all measures. Fully trained teachers (Group A) showed significantly greater improvement on the *ELLCO* and the *Creative Curriculum Implementation Checklist* than did Group B. The low effect size between Groups A and B was anticipated, as both received treatment but on a delayed timeline. However, the effect size across time was statistically significant.
- 2) The children of Project REEL teachers significantly improved on the GPRA measures of receptive language (*PPVT*), letter knowledge (*PALS Pre-K subtest*), and name writing (*PALS Pre-K subtest*). On other grant measures, children's expressive language (*EVT*) increased significantly, as did their scores on the *IGDI*, the *PUP*, and the *NAP*.

#### **GPRA OUTCOMES**

#### **ELLCO** findings:

- Classroom Observation: 88% of Group A and 71% of Group B ECEs performed at or above the mean of the LEEP/NEQRC data.
- Literacy Environment Checklist: 92% of Group A and 82% of Group B ECEs performed at or above the mean of the LEEP/NEQRC data.
- Literacy Activity Rating Scale: 88% of Group A and 70% of Group B ECEs performed at or above the mean of the LEEP/NEQRC data.

#### **PPVT** findings:

- 90% of Group A and 86% of Group B children had age-appropriate receptive vocabularies (standard scores of 85 or above) in the Spring of 2007.
- 48% of Group A and 33% of Group B children improved by 4 or more standard score points from Fall to Spring.

#### PALS Pre-K (upper case) letter knowledge findings:

- Average number of letters correctly recognized was 10.34 in Fall 2006 and 12.10 in Spring 2007...
- Kindergarten-eligible children of Group A (fully trained) ECEs who had been exposed to a trained teacher for 6 months improved from 9.98 letters in the Fall to 16.13 in the Spring.

#### OTHER TEACHER OUTCOMES

#### Strategy Checklists findings [a Project REEL measure]:

Between Fall 2006 and Spring 2007, ECEs working with younger children improved their strategy use from 73.8% to 85.1%. ECEs working with older children improved their strategy use from 66% to 78%, and ECEs working with multi-age groups improved their strategy use from 49% to 61%.

#### <u>Creative Curriculum Implementation Checklists findings:</u>

Between Spring 2006 and Spring 2007, the number of classrooms fully implementing the Creative Curriculum in preschool increased from 8% to 27%; infant/toddler settings increased from 12% to 36%; and family child care increased from 27% to 43%. The overall number of classrooms fully implementing Creative Curriculum increased from 12% to 34%.

#### ECTS (Early Childhood Teacher Survey) findings [a Project REEL measure]:

For 7 of the 8 dimensions, ratings improved significantly from baseline testing in Spring 2006 to Spring 2007

#### IDEAL-N (Improving the Daily Environment for Access to Literacy and Numeracy) findings [a Project REEL measure]:

ECEs' scores increased in every subscale from the baseline testing in Spring 2006 to Spring 2007.

#### OTHER CHILD OUTCOMES

#### PALS Pre-K name writing findings:

- Fall 2006 scores were 4.68 (out of 7) and improved to 4.85 in Spring 2007.
- For Kindergarten-eligible children in Group A (exposed to a fully trained teacher), scores increased from 4.79 in the Fall to 5.85 in the Spring.

#### EVT (Expressive Vocabulary Test) findings:

41.7% of Group A children and 29.8% of Group B children improved by 4 or more Standard Score points from Fall 2006 to Spring 2007.

#### IGDI (Individual Growth and Development Indicators: Rhyming and Alliteration) findings:

Group A children improved from 4.67 to 8.29 and Group B children improved from 6.21 to 8.75 on the rhyming subtest. Group A children increased from 3.77 to 5.73 and Group B children increased from 3.95 to 5.54 on alliteration.

#### PUP (Preschoolers Understanding of Print) findings [a Project REEL measure]:

Overall average percent correct improved from 51.73 in the Fall to 55.94 in the Spring. For children who were assessed both times, Fall scores averaged 53.18% correct and Spring scores averaged 62.87% correct.

### <u>NAP (Numeracy Assessment of Preschoolers)</u> findings [a Project REEL measure]:

For all children tested on at least one occasion, the mean percentage correct increased from 58.04 to 65.14 from Fall to Spring.

#### <u>PKBS (Preschool and Kindergarten Behavioral Scales 2) findings:</u>

Overall standard scores on the PKBS social skills scale increased from 101.91 to 105.89 from Fall to Spring.

#### Contributions to research, knowledge/practice, or policy

- Our delayed-treatment design allowed for 1) all children—not just those in a treatment group—and all ECEs to benefit from research-based curriculum, pedagogy, and socially-emotionally supportive early childhood environments, and 2) substantive improvements to be made in program elements from Year 1 to Year 2 of the study design.
- Our professional development model based on increasing the knowledge and strategies of ECEs about children's socialemotional, oral language, literacy, and numeracy development through the use of small-group training, individual
  coaching, and an infusion of books/materials in the setting has proven to significantly improve teacher knowledge and
  skills.
- <u>All</u> ECEs improved their knowledge and skills of research-based practices in early childhood education, regardless of varied educational backgrounds ranging from GED/high school diplomas to bachelor's degrees.
- ECEs from all educational backgrounds improved the physical environment of their settings to be more supportive of children's development in oral language, literacy, numeracy, and social skills.
- Children from low income communities increased their knowledge and skills in oral language, literacy, and numeracy
  when their teachers received research-based small-group training, individualized coaching, and an infusion of
  books/materials.
- A statewide program like Project REEL relies on partners such as the CCR&R Network in Tennessee to hire, integrate, and maintain specialists in a "train-the trainer" design. Communication with, documentation from, and retention of specialists across 11 regions of the state require constant monitoring and adjusting. Future grant programs of this size need to clearly plan for all contingencies of communication challenges; varying commitment of the specialists, directors, and coordinators; and drop-out (of participants, directors, and specialists) when designing a statewide initiative.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

1 . **Project Objective** Il Check if this is a status update for the previous budget period. Provide participating ECEs with 120 hours of research based, high-quality professional development, preparing them to implement developmentally appropriate classroom practices that promote cognitive and social development.

1.0a. Performance Measure	Measure Type			Quanti	tative Data		
120 hours of research-based	PROJ	T	arget		Actual Perf	ormance Data	
professional development provided to early childhood educators (ECEs)		Raw Number	Ratio	%	Raw Number	Ratio	%
,		120	/			/	
	Measure Type			Quanti	tative Data		
Implement developmentally			Target	Quanti		erformance Data	a
1.0b. Performance Measure Implement developmentally appropriate classroom practices	Type	Raw Number	Target Ratio	Quanti		rformance Data Ratio	%

Explanation of Progress (Include Qualitative Data and Data Collection Information)

1.0a. During the second year of this project Group A and B completed formal training sessions (14 / 2 hour sessions = 28 hours) on the following topics: 1 session on Social and Emotional Development, 2 sessions on Oral Language Development, 2 sessions on Phonological/Phonemic Awareness, 2 sessions on Concepts About Books and Print, 1 session on Alphabetic

Principle, 1 session on Comprehension and Motivation, 1 session on Emergent Writing, 2 sessions on, Early Numeracy Development, 1 session on Embedding Lit-eracy into the Learning Centers, and 1 session on Pulling Together All the Pieces. Group A and B also received 40 - 44 hours of intensive coaching, which consisted of Project REEL Specialists spending several hours a week with participants in their classrooms modeling, coaching, and supporting implementation of strategies taught in formal sessions. Group A and B also received 30 -34 hours of supportive coaching, which consisted of Project REEL Specialist providing additional modeling, coaching, and support on specific strategies, and Specialists spent a portion of that time reinforcing the participants? appropriate use of new strategies. The remaining 18 hours will be completed during year 3.

1.0b.

### Creative Curriculum Implementation Checklists

During Year 2 we used the Creative Curriculum Implementation Checklists (observations conducted by Project REEL specialists) to measure implementation of developmentally appropriate classroom practices for all ECEs (Groups A and B). The targeted goal for full implementation on the Creative Curriculum Implementation Checklists is 85%. At the most recent assessment (Spring 2007), the results were: Preschool Implementation Checklist average score of 75.5%% with 27% of the classrooms fully implementing; Infant/Toddler Implementation Checklist average score of 76.6% with 36% of the classrooms fully implementing; Family Child Care Implementation Checklist average score of 82.1%% with 43% of the settings fully implementing. There were no statistically significant differences between Group A (fully trained) and Group B (partly trained) teachers on the Implementation Checklists in Spring 2007.

## **Strategy Checklists**

During Year 2, the ECEs were objectively rated by the Specialists using the Strategy Checklist that examines ECEs' use of every recommended research-based strategy, including items related to all 9 content areas (social-emotional, oral language, phonological awareness, print awareness, book concepts, alphabet, comprehension, writing, & numeracy). Strategy Checklists are based on cumulative hours of observation rather than a single observation period. There are three versions of the Strategy Checklist: Older (for preschool & pre-K children), Younger (for Infants and Toddlers), and Multi-age (for settings that serve children from birth to 5, typically family settings). For most strategies, the specialist marked 0 for absent, 1 for using the strategy but needing improvement, or 2 for using the strategy well; a few items were scored as 0 (absent) or 1 (present). Scores reported be-low are average total scores, summing all scores of 1 and 2 across the entire strategy checklist. In Spring 2007, ECEs working with older children averaged 378.5 out of a possible 527 points (71.8%). Those working with younger children averaged 245.54 out of a possible 295, or 83.2%. Multi-age settings averaged 390.65 out of 561 points, or 69.6 %. There were no statistically significant differences by ECE group in Spring 2007.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

1.1a. Performance Measure	Measure Type			Qua	ntitative Data		
Increase the number of	PROJ	Ta	ırget		Actual Perf	ormance Data	
professional development hours from 12 annual hours of training required by the State		Raw Number	Ratio	%	Raw Number	Ratio	%
of Tennessee to 120 hours for Project REEL		120	/		102	/	
	,						
1.1b. Performance Measure	Measure Type			Qua	ntitative Data		
Provide professional	PROJ	Ta	ırget		Actual Perf	ormance Data	
development hours to ECEs in low-income communities throughout the State of		Raw Number	Ratio	%	Raw Number	Ratio	%
Tennessee (72 settings with		220	/		165	/	
over 50% of the children from low-income families and/or the communities have the greatest number of children from low-income families according to eligibility criteria of Absolute Priority).							

Explanation of Progress (Include Qualitative Data and Data Collection Information)

1.1a. . During the second year of this project Group A and B completed formal training sessions (14 / 2 hour sessions = 28 hours) on the following topics: 1session on Social and Emotional Development, 2 sessions on Oral Language Development, 2 sessions on Phonological/Phonemic Awareness, 2 sessions on Concepts About Books and Print, 1 session on Alphabetic Principle, 1 session on Comprehension and Motivation, 1 session on Emergent Writing, 2 sessions on Early Numeracy Development, 1 session on Embedding Liter-acy into the Learning Centers, and 1 session on Pulling Together All the Pieces. Group A and B also received 40 - 44 hours of intensive coaching, which consisted of Project REEL Specialists spending several hours a week with participants in their classrooms modeling, coaching, and supporting implementation of strategies taught in formal sessions. Group A and B also received 30 -34 hours of supportive coaching, which consisted of Project REEL Specialists providing additional modeling, coaching, and support on specific strategies, and Specialists spent a portion of that time reinforcing the participants' appropriate use of new strategies. The remaining 18 hours will be completed during year 3.

1.1b. Before Group A began training, 366 ECEs from 90 settings across Tennessee were recruited to participate in Project REEL (with 90 directors, 31 of whom were acting as director/teachers). At the end of Year 1 (August, 2006), 208 teachers were participating in 72 settings (with 65 directors and 23 of those serving as director/teachers). At the end of Year 2 (August 2007), 165 ECEs in 69 settings completed training (with 68 directors, 25 of whom were serving as director/teachers). To accommodate for attrition, additional ECEs (beyond our ultimate target of 220, or 20 per region) were recruited initially, and new ECEs were added into Group B as necessary once training for Group A teachers had begun. We also met or talked with participants who indicated a desire or need to withdraw and attempted to resolve any issues under our control. From our original recruitment sample to the end of Year 1, we retained 57% (208/366) of our participants. Many of those who dropped during that time period did so due to unwillingness to make a 3-year commitment to an intensive training program or to wait (as in the delayed treatment group) for training and materials. Once training began (workshops and on-site coaching), we lost far fewer participants. From the end of Year 1 to the end of Year 2, we retained 80% (165/208) of our participants.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

1 . **Project Objective** Il Check if this is a status update for the previous budget period. Provide 220 ECEs with 120 hours of research-based professional development in language & literacy, numeracy, social skills development, classroom management, effective pedagogy.

1.2a. Performance Measure	Measure Type			Qua	ntitative Data		
220 early childhood educators	PROJ	Ta	arget		Actual Perf	ormance Data	
(ECEs) to be served		Raw Number	Ratio	%	Raw Number	Ratio	%
	lΓ	220	/		165	/	
1.2b. Performance Measure	Measure Type			Qua	ntitative Data		
Provide research-based	PROJ	Ta	arget		Actual Perf	ormance Data	
language and literacy training, training in nu-meracy, social skills development, classroom		Raw Number	Ratio	%	Raw Number	Ratio	%
management, and effective	І Г	220	/		165	/	
pedagogy involving the following elements:  * 257 pp. Project REEL Trainer's Guide (6 total chapters)  * 243 pp. Project REEL ECE Manual (10 chapters)							

* \$1,000 in literary materials	1		
* \$1,000 in literacy materials			
to each participant (ECEs)			
* 28 hours in workshop			
training sessions			
* 42 hours in Intensive			
Coaching in settings			
* 32 hours Supportive			
Coaching in settings			
* 6 hours Monthly topical			
seminars			
* 12 hours Circle of Friends			
groups			
* Creative Curriculum Texts			
* Creative Curriculum			
Training			
* Directors to receive \$1,000			
· ·			
worth of books & materials			

Explanation of Progress (Include Qualitative Data and Data Collection Information)

1.2a. Before Group A began training, 366 ECEs from 90 settings across Tennessee were recruited to participate in Project REEL (with 90 directors, 31 of whom were acting as director/teachers). At the end of Year 1 (August, 2006), 208 teachers were participating in 72 settings (with 65 directors and 23 of those serving as director/teachers). At the end of Year 2 (August 2007), 165 ECEs in 69 settings completed training (with 68 directors, 25 of whom were serving as director/teachers). To accommodate for attrition, additional ECEs (beyond our ultimate target of 220, or 20 per region) were recruited initially, and new ECEs were added into Group B as necessary once training for Group A teachers had begun. We also met or talked with participants who indicated a desire or need to withdraw and attempted to resolve any issues under our control. From our original recruitment sample to the end of Year 1, we retained 57% (208/366) of our participants. Many of those who dropped during that time period did so due to unwillingness to make a 3-year commitment to an intensive training program or to wait (as in the delayed treatment group) for training and materials. Once training began (workshops and on-site coaching), we lost far fewer participants. From the end of Year 1 to the end of Year 2, we retained 80% (165/208) of our participants.

1.2 b. During the second year of this project Group A and B completed formal training sessions (14 / 2 hour sessions = 28 hours) on the following topics: 1session on Social and Emotional Development, 2 sessions on Oral Language Development, 2 sessions on Phonological/Phonemic Awareness, 2 sessions on Concepts About Books and Print, 1 session on Alphabetic

Principle, 1 session on Comprehension and Motivation, 1 session on Emergent Writing, 2 sessions on Early Numeracy Development, 1 session on Embedding Liter-acy into the Learning Centers, and 1 session on Pulling Together All the Pieces. Group A and B also received 40 - 44 hours of intensive coaching, which consisted of Project REEL Specialists spending several hours a week with participants in their classrooms modeling, coaching, and supporting implementation of strategies taught in formal sessions. Group A and B also received 30 -34 hours of supportive coaching, which consisted of Project REEL Specialists providing additional modeling, coaching, and support on specific strategies, and Specialists spent a portion of that time reinforcing the participants' appropriate use of new strategies. The remaining 18 hours will be completed during year 3.

During Year 2 the Co-Directors and Project Manager completed the 257 page, 6 chapter Trainer's Guide. The Co-Directors and Project Manager completed the 243 page, 10 chapter Early Childhood Educator Manual.

The ECEs received their \$1,000 in literacy materials after they completed milestones in their training.

Overall the ECEs received 82 Creative Curriculum for Preschool texts, 81 Creative Curriculum for Infants and Toddlers texts, 34 Creative Curriculum for Family Childcare texts, 137 Literacy the Creative Curriculum Approach texts. Also during Year 1, 121 Creative Curriculum Preschool Developmental Continuum kits were delivered to preschool ECEs in Groups A and B.

As needed during Year 2 ECEs continued to receive Creative Curriculum training through their Child Care Resource and Referral Specialist. Overall, teachers have received an additional 5,011.75 hours.

The directors received their \$1,000 in books and materials after they completed milestones in their training.

Topical Seminars and Circle of Friends peer support groups will be completed during Year 3.

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## U.S. Department of Education Grant Performance Report (ED 524B) Project Status Chart

PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

1 . **Project Objective** Il Check if this is a status update for the previous budget period. Provide ongoing training for 220 ECEs over a period of 2 years (serving 2 cohorts of 110 ECEs during the 3-year grant period) to include observations of master teachers in model demonstration classrooms and observation and coaching on-site in participants' classrooms.

Overtitative Date

1.3a. Performance Measure	Measure Type			Quar	ititative Data		
Training for 220 early	PROJ	Ta	arget		Actual Perf	formance Data	
childhood educators (ECEs) over 2 year period		Raw Number	Ratio	%	Raw Number	Ratio	%
		200	/		165	/	
	Measure Type			Quai	ititative Data		
1.3b. Performance Measure     (1) Observations of master     tagglers in model	Type PROJ	Ta	arget	Quai		formance Data	
	Type	Ta Raw Number	arget Ratio	%		formance Data Ratio	%

Explanation of Progress (Include Qualitative Data and Data Collection Information)

1.3a. Before Group A began training, 366 ECEs from 90 settings across Tennessee were recruited to participate in Project

REEL (with 90 directors, 31 of whom were acting as director/teachers). At the end of Year 1 (August, 2006), 208 teachers were participating in 72 settings (with 65 directors and 23 of those serving as director/teachers). At the end of Year 2 (August 2007), 165 ECEs in 69 settings completed training (with 68 directors, 25 of whom were serving as director/teachers). To accommodate for attrition, additional ECEs (beyond our ultimate target of 220, or 20 per region) were recruited initially, and new ECEs were added into Group B as necessary once training for Group A teachers had begun. We also met or talked with participants who indicated a desire or need to withdraw and attempted to resolve any issues under our control. From our original recruitment sample to the end of Year 1, we retained 57% (208/366) of our participants. Many of those who dropped during that time period did so due to unwillingness to make a 3-year commitment to an intensive training program or to wait (as in the delayed treatment group) for training and materials. Once training began (workshops and on-site coaching), we lost far fewer participants. From the end of Year 1 to the end of Year 2, we retained 80% (165/208) of our participants.

1.3b. #1 Travel constraints in several of the larger regions were a barrier to observations. However, the most significant challenge was finding settings in each region where appropriate strategies were in use. It became apparent that time spent in improving and enriching the ECEs' classroom would be more effective than traveling to observation sites. We have increased the number of site coaching hours that each participant receives.

1.3b #2. In light of 1.3b.#1, we have increased the number of on site coaching hours because the teachers are not going to observe at other sites. Group A and B also received 40 - 44 hours of intensive coaching, which consisted of Project REEL Specialist spending several hours a week with participants in their classroom modeling, coaching, and supporting implementation of strategies taught in formal sessions. Group A and B also received 30 -34 hours of supportive coaching, which consisted of Project REEL Specialist providing additional modeling, coaching, and support on specific strategies and Specialists spent a portion of that time reinforcing the participants? appropriate use of new strategies. As a group, Project REEL ECEs have received an additional 5,011.75 hours of training from CCR&R Specialists.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

1.4a. Performance Measure	Measure Type			Qua	antitative Data		
Train 220 early childhood	PROJ	Ta	rget		Actual Perf	ormance Data	
educators		Raw Number	Ratio	%	Raw Number	Ratio	%
		220	/		165	/	
(1) Teachers adapt classroom practices to meet individual	Type	Ta	ırget			formance Data	
1.4b. Performance Measure  (1) Teachers adapt classroom.	1	TD.		Qua	antitative Data	P. 1	
needs of younger children in		Raw	Ratio	%	Raw	Ratio	%
social skills, language/literacy	,	Number	Katio	/*	Number	Katio	/0
learning, and numeracy.			/			/	
(2) Teachers adapt classroom practices to meet individual needs of older children in social skills, language/literacy learning, and nu-meracy.							

Explanation of Progress (Include Qualitative Data and Data Collection Information)

1.4a. Before Group A began training, 366 ECEs from 90 settings across Tennessee were recruited to participate in Project REEL (with 90 directors, 31 of whom were acting as director/teachers). At the end of Year 1 (August, 2006), 208 teachers were participating in 72 settings (with 65 directors and 23 of those serving as director/teachers). At the end of Year 2 (August 2007), 165 ECEs in 69 settings completed training (with 68 directors, 25 of whom were serving as director/teachers). To accommodate for attrition, additional ECEs (beyond our ultimate target of 220, or 20 per region) were recruited initially, and new ECEs were added into Group B as necessary once training for Group A teachers had begun. We also met or talked with participants who indicated a desire or need to withdraw and attempted to resolve any issues under our control. From our original recruitment sample to the end of Year 1, we retained 57% (208/366) of our participants. Many of those who dropped during that time period did so due to unwillingness to make a 3-year commitment to an intensive training program or to wait (as in the delayed treatment group) for training and materials. Once training began (workshops and on-site coaching), we lost far fewer participants. From the end of Year 1 to the end of Year 2, we retained 80% (165/208) of our participants.

1.4b.

#### **ECTS**

During Year 2 the ECEs completed the Early Childhood Teacher Survey (ECTS), which is a self-rating scale with 87 questions divided into eight different subscales that measures the ECEs' classroom practices. The ECEs rate themselves on how often they use recommended strategies using a scale of 1 for never and up to 5 for always. If an item does not apply, ECEs have the option of marking the question not applicable. The 8 subscales for the ECTS are: 1) Organization and management of the learning environment; 2) Supporting children's oral language development; 3) Supporting children's understanding of the sounds of words in oral language; 4) Supporting children's awareness of the uses of print and how books work; 5) Supporting children's understanding of the alphabet; 6) Supporting children's interest and motivation to learn about print; 7) Supporting children's development of mathematical skills; and 8) Supporting children's development of writing skills. Our overall goal was a 4.5 or above (90%) for each subscale. During Spring 2007 the ratings averaged 4.08 meaning the ECEs reported using the recommended strategies at a rate of about 81.7% For print awareness and book knowledge, Group A ECEs rated themselves higher than Group B ECEs did, F (1,117) = 5.24, p<.05, partial eta2 = .04, but there were no significant differences on the other dimensions. Ratings for each dimension are shown below.

Organization and management of the learning environment 90% Supporting oral language development 84% Supporting understanding of sounds of language 73% Supporting understanding of print & books 72% Supporting understanding of alphabet 80% Supporting interest and motivation about print 82%

Supporting mathematical skills 87% Supporting writing skills 85%

#### **ELLCO**

During Year 2, the Project REEL Specialists completed the Early Language and Literacy Classroom Observation (ELLCO) in participating preschool classrooms. Our overall mean goal was to have the 100% of the teachers score above a 3.5, which is classified as high quality. In Spring 2007, the average score on the Classroom Observation scale was 3.78, with 64% of the ECEs categorized as providing high quality classroom environments. Compared to the NEQRC/LEEP data, 80% of our ECEs were at or above the average score. On the Literacy Activity Rating Scale our goal was to be at 100%. In Spring 2007, the overall score was 8.29, which translates to 61%. Compared to the NELP/NEHSQ data, 78% of the Project REEL ECEs were at or above the average. In Spring 2007, Group A ECEs (fully trained) scored higher on each ELLCO subscale than Group B ECEs (partly trained), but the differences were not statistically significant.

## **Strategy Checklists**

During Year 2, the ECEs were objectively rated by the Specialists using the Strategy Checklist that examines ECEs' use of every recommended research-based strategy, including items related to all 9 content areas (social-emotional, oral language, phonological awareness, print awareness, book concepts, alphabet, comprehension, writing, & numeracy). Strategy Checklists are based on cumulative hours of observation rather than a single observation period. There are three versions of the Strategy Checklist: Older (for preschool & pre-K children), Younger (for Infants and Toddlers), and Multi-age (for settings that serve children from birth to 5, typically family settings). For most strategies, the specialist marked 0 for absent, 1 for using the strategy but needing improvement, or 2 for using the strategy well; a few items were scored as 0 (absent) or 1 (present). Scores reported be-low are average total scores, summing all scores of 1 and 2 across the entire strategy checklist. In Spring 2007, ECEs working with older children averaged 378.5 out of a possible 527 points (71.8%). Those working with younger children averaged 245.54 out of a possible 295, or 83.2%. Multi-age settings averaged 390.65 out of 561 points, or 69.6 %. There were no statistically significant differences by ECE group in Spring 2007.

## Creative Curriculum Implementation Checklists

The Creative Curriculum Implementation Checklist also contains items assessing the extent to which ECEs adapt practices for children with various special needs. The targeted goal for full implementation on the Creative Curriculum Implementation Checklists is 85%. At the most recent assessment (Spring 2007), the results were: Preschool Implementation Checklist average score of 75.5%% with 27% of the classrooms fully implementing. Infant/Toddler Implementation Checklist average score of 76.6% with 36% of the classrooms fully implementing. Family Child Care Implementation Checklist average score of 82.1%% with 43% of the settings fully implementing. There were no statistically significant differences between Group A and Group B ECEs.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

1.5a. Performance Measure	Measure Type			Quan	ntitative Data		
	PROJ	Ta	ırget		Actual Per	formance Data	
appropriate literacy practices * 257 pp. Project REEL Trainer's Guide (6 total		Raw Number	Ratio	%	Raw Number	Ratio	%
chapters)		220	/		165	/	
* 243 pp. Project REEL ECE Manual (10 chapters)							
* \$1,000 in literacy materials							
to each participant (ECE)  * 28 hours in workshop							
training sessions							
* 42 hours in Intensive							
Coaching in settings							
* 32 hours Supportive Coaching in settings							
* 6 hours Monthly topical							
seminars							
* 12 hours Circle of Friends							
groups							
* Creative Curriculum Texts  * Creative Curriculum							

Training		
* Directors to receive \$1,000		
worth of books & materials		
* Materials to Child Care		
Resource and Referral		
* Materials to local model		
sites (UTC Children's Center		
and Siskin Children Center)		

Explanation of Progress (Include Qualitative Data and Data Collection Information)

1.5a. During the second year of this project Group A and B completed formal training sessions (14 / 2 hour sessions = 28 hours) on the following topics: 1session on Social and Emotional Development, 2 sessions on Oral Language Development, 2 sessions on Phonological/Phonemic Awareness, 2 sessions on Concepts About Books and Print, 1 session on Alphabetic Principle, 1 session on Comprehension and Motivation, 1 session on Emergent Writing, 2 sessions on Early Numeracy Development, 1 session on Embedding Liter-acy into the Learning Centers, and 1 session on Pulling Together All the Pieces. Group A and B also received 40 - 44 hours of intensive coaching, which consisted of Project REEL Specialists spending several hours a week with participants in their classroom modeling, coaching, and supporting implementation of strategies taught in formal sessions. Group A and B also received 30 -34 hours of supportive coaching, which consisted of Project REEL Specialists providing additional modeling, coaching, and support on specific strategies, and Specialists spent a portion of that time reinforcing the participants? appropriate use of new strategies. The remaining 18 hours will be completed during year 3.

During Year 2 the Co-Directors and Project Manager completed the 257 page, 6 chapter Trainer's Guide. The Co-Directors and Project Manager completed the 243 page, 10 chapter Early Childhood Educator Manual.

The ECEs received their \$1,000 in literacy materials after they completed milestones in their training.

Overall the ECEs received 82 Creative Curriculum for Preschool texts, 81 Creative Curriculum for Infants and Toddlers texts, 34 Creative Curriculum for Family Childcare texts, 137 Literacy the Creative Curriculum Approach texts. Also during Year 1, 121 Creative Curriculum Preschool Developmental Continuum kits were delivered to preschool ECEs in Groups A and B.

As needed during Year 2, ECEs continued to receive Creative Curriculum training through their Child Care Resource and Referral Specialist. Overall, teachers have received an additional 5,011.75 hours.

The directors received their \$1,000 in books and materials after they completed milestones in their training.

Topical Seminars and Circle of Friends peer support groups will be completed during Year 3.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

2 . **Project Objective** Il Check if this is a status update for the previous budget period. Provide comprehensive, research-based training to ECEs, preparing them to increase the literacy, language, numeracy, and social skills of children with diverse learning needs ages birth to pre-kindergarten living within low-income communities statewide.

2.0a. Performance Measure	Measure Type	e Quantitative Data							
Provide research-based PROJ		Target			Actual Performance Data				
language and literacy training, training in nu-meracy, social skills development, classroom		Raw Number	Ratio	%	Raw Number	Ratio	%		
management, and effective pedagogy involving the		220	/		165	/			
following elements:  * 257 pp. Project REEL Trainer's (6 total chapters)  * 243 pp. Project REEL ECE Manual (10 chapters)  * \$1,000 in literacy materials to each participant (ECEs)  * 28 hours in workshop training sessions  * 42 hours in Intensive Coaching in settings  * 32 hours Supportive Coaching in settings  * 6 hours Monthly topical									

seminars  * 12 hours Circle of Friends groups  * Creative Curriculum Texts  * Creative Curriculum Training  * Directors to receive \$1,000 worth of books & materials							
2.0b. Performance Measure	Measure Type			Qua	nntitative Data		
1	PROJ	Ta	rget		Actual Perfo	ormance Data	
development hours to ECEs in low-income communities throughout the State of		Raw Number	Ratio	%	Raw Number	Ratio	%
Tennessee (72 settings with		72	/		69	/	
over 50% of the children from low-income families and/or the communities have the greatest number of children							

Explanation of Progress (Include Qualitative Data and Data Collection Information)

2.0.a.. During the second year of this project Group A and B completed formal training sessions (14 / 2 hour sessions = 28 hours) on the following topics: 1session on Social and Emotional Development, 2 sessions on Oral Language Development, 2 sessions on Phonological/Phonemic Awareness, 2 sessions on Concepts About Books and Print, 1 session on Alphabetic Principle, 1 session on Comprehension and Motivation, 1 session on Emergent Writing, 2 sessions on Early Numeracy Development, 1 session on Embedding Liter-acy into the Learning Centers, and 1 session on Pulling Together All the Pieces. Group A and B also received 40 - 44 hours of intensive coaching, which consisted of Project REEL Specialists spending several hours a week with participants in their classroom modeling, coaching, and supporting implementation of strategies taught in formal sessions. Group A and B also received 30 -34 hours of supportive coaching, which consisted of Project REEL Specialists providing additional modeling, coaching, and support on specific strategies, and Specialists spent a portion of that time reinforcing the participants' appropriate use of new strategies. The remaining 18 hours will be

completed during year 3.

During Year 2 the Co-Directors and Project Manager completed the 257 page, 6 chapter Trainer's Guide. The Co-Directors and Project Manager completed the 243 page, 10 chapter Early Childhood Educator Manual.

The ECEs received their \$1,000 in literacy materials after they completed milestones in their training.

Overall the ECEs received 82 Creative Curriculum for Preschool texts, 81 Creative Curriculum for Infants and Toddlers texts, 34 Creative Curriculum for Family Childcare texts, 137 Literacy the Creative Curriculum Approach texts. Also during Year 1, 121 Creative Curriculum Preschool Developmental Continuum kits were delivered to preschool ECEs in Groups A and B.

As needed during Year 2, ECEs continued to receive Creative Curriculum training through their Child Care Resource and Referral Specialist. Overall, teachers have received an additional 5,011.75 hours.

The directors received their \$1,000 in books and materials after they completed milestones in their training.

Topical Seminars and Circle of Friends will be completed during Year 3.

2.0b. Before Group A began training, 366 ECEs from 90 settings across Tennessee were recruited to participate in Project REEL (with 90 directors, 31 of whom were acting as director/teachers). At the end of Year 1 (August, 2006), 208 teachers were participating in 72 settings (with 65 directors and 23 of those serving as director/teachers). At the end of Year 2 (August 2007), 165 ECEs in 69 settings completed training (with 68 directors, 25 of whom were serving as director/teachers). To accommodate for attrition, additional ECEs (beyond our ultimate target of 220, or 20 per region) were recruited initially, and new ECEs were added into Group B as necessary once training for Group A teachers had begun. We also met or talked with participants who indicated a desire or need to withdraw and attempted to resolve any issues under our control. From our original recruitment sample to the end of Year 1, we retained 57% (208/366) of our participants. Many of those who dropped during that time period did so due to unwillingness to make a 3-year commitment to an intensive training program or to wait (as in the delayed treatment group) for training and materials. Once training began (workshops and on-site coaching), we lost far fewer participants. From the end of Year 1 to the end of Year 2, we retained 80% (165/208) of our participants.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

2 . **Project Objective** Il Check if this is a status update for the previous budget period.

Train 220 ECEs who work in low-income communities in research-based lang. & literacy, numeracy, classroom management, social skills development and early childhood pedagogy for children with special educational needs and typically developing peers.

2.1a. Performance Measure	Measure Type			Qua	antitative Data		
Provide professional	PROJ	Ta	rget		Actual Perf	ormance Data	
development hours to 220 ECEs in low-income communities throughout the		Raw Number	Ratio	%	Raw Number	Ratio	%
State of Tennessee (72 settings with over 50% of the children		220	/		165	/	
and/or the communities have the greatest number of children from low-income families according to eligibility criteria of Absolute Priority.				Oua	antitative Data		
	Type			~~~			
Provide research-based	PROJ	Ta	rget		Actual Perf	formance Data	
language and literacy training, training in nu-meracy, social skills development, classroom		Raw Number	Ratio	%	Raw Number	Ratio	%
management, and effective							

pedagogy involving the	220	/	165	/	
following elements:					
* 257 pp. Project REEL					
Trainer's Guide (6 total					
chapters)					
* 243 pp. Project REEL ECE					
Manual (10 chapters)					
* \$1,000 in literacy materials					
to each participant					
* 28 hours in workshop					
training sessions from Project					
REEL Specialists					
* 42 hours in Intensive					
Coaching in settings from					
Project REEL Specialists					
* 32 hours Supportive					
Coaching in settings from					
Project REEL Specialists					
* 6 hours Monthly topical					
seminars					
? 12 hours Circle of Friends					
groups					
* Creative Curriculum Texts					
* Creative Curriculum					
Training					
* Directors to receive \$1,000					
worth of books & materials					

Explanation of Progress (Include Qualitative Data and Data Collection Information)

2.1a. Before Group A began training, 366 ECEs from 90 settings across Tennessee were recruited to participate in Project REEL (with 90 directors, 31 of whom were acting as director/teachers). At the end of Year 1 (August, 2006), 208 teachers were participating in 72 settings (with 65 directors and 23 of those serving as director/teachers). At the end of Year 2 (August 2007), 165 ECEs in 69 settings completed training (with 68 directors, 25 of whom were serving as director/teachers). To accommodate for attrition, additional ECEs (beyond our ultimate target of 220, or 20 per region) were recruited initially, and new ECEs were added into Group B as necessary once training for Group A teachers had begun. We also met or talked with participants who indicated a desire or need to withdraw and attempted to resolve any issues under

our control. From our original recruitment sample to the end of Year 1, we retained 57% (208/366) of our participants. Many of those who dropped during that time period did so due to unwillingness to make a 3-year commitment to an intensive training program or to wait (as in the delayed treatment group) for training and materials. Once training began (workshops and on-site coaching), we lost far fewer participants. From the end of Year 1 to the end of Year 2, we retained 80% (165/208) of our participants.

2.1b. During the second year of this project Group A and B completed formal training sessions (14 / 2 hour sessions = 28 hours) on the following topics: 1session on Social and Emotional Development, 2 sessions on Oral Language Development, 2 sessions on Phonological/Phonemic Awareness, 2 sessions on Concepts About Books and Print, 1 session on Alphabetic Principle, 1 session on Comprehension and Motivation, 1 session on Emergent Writing, 2 sessions on Early Numeracy Development, 1 session on Embedding Liter-acy into the Learning Centers, and 1 session on Pulling Together All the Pieces. Group A and B also received 40 - 44 hours of intensive coaching, which consisted of Project REEL Specialists spending several hours a week with participants in their classroom modeling, coaching, and supporting implementation of strategies taught in formal sessions. Group A and B also received 30 -34 hours of supportive coaching, which consisted of Project REEL Specialists providing additional modeling, coaching, and support on specific strategies, and Specialists spent a portion of that time reinforcing the participants' appropriate use of new strategies. The remaining 18 hours will be completed during year 3.

During Year 2 the Co-Directors and Project Manager completed the 257 page, 6 chapter Trainer's Guide. The Co-Directors and Project Manager completed the 243 page, 10 chapter Early Childhood Educator Manual.

The ECEs received their \$1,000 in literacy materials after they completed milestones in their training.

Overall the ECEs received 82 Creative Curriculum for Preschool texts, 81 Creative Curriculum for Infants and Toddlers texts, 34 Creative Curriculum for Family Childcare texts, 137 Literacy the Creative Curriculum Approach texts. Also during Year 1, 121 Creative Curriculum Preschool Developmental Continuum kits were delivered to preschool ECEs in Groups A and B.

As needed during Year 2 ECEs continued to receive Creative Curriculum training through their Child Care Resource and Referral Specialist. Overall, teachers have received an additional 5,011.75 hours.

The directors received their \$1,000 in books and materials after they completed milestones in their training.

Topical Seminars and Circle of Friends peer support groups will be completed during Year 3.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

2 . **Project Objective** Il Check if this is a status update for the previous budget period. Support and assess 220 ECEs to prepare an Individual Teaching Plan (ITP).

2.2a. Performance Measure	Measure Type			Qu	antitative Data		
Support and assist 220 early childhood educators (ECEs)	PROJ	Ta	rget		Actual Perfe	ormance Data	
cilidilood educators (ECEs)		Raw Number	Ratio	%	Raw Number	Ratio	%
		220	/		165	/	

2.2b. Performance Measure	Measure Type			Qu	antitative Data		
Support and assist ECEs to prepare Individual Teaching	PROJ	Ta	rget		Actual Perfo	ormance Data	
Plans that will be used to implement research-based		Raw Number	Ratio	%	Raw Number	Ratio	%
practices		12	/		12	/	

Explanation of Progress (Include Qualitative Data and Data Collection Information)

2.2a. Before Group A began training, 366 ECEs from 90 settings across Tennessee were recruited to participate in Project REEL (with 90 directors, 31 of whom were acting as director/teachers). At the end of Year 1 (August, 2006), 208 teachers were participating in 72 settings (with 65 directors and 23 of those serving as director/teachers). At the end of Year 2 (August 2007), 165 ECEs in 69 settings completed training (with 68 directors, 25 of whom were serving as

director/teachers). To accommodate for attrition, additional ECEs (beyond our ultimate target of 220, or 20 per region) were recruited initially, and new ECEs were added into Group B as necessary once training for Group A teachers had begun. We also met or talked with participants who indicated a desire or need to withdraw and attempted to resolve any issues under our control. From our original recruitment sample to the end of Year 1, we retained 57% (208/366) of our participants. Many of those who dropped during that time period did so due to unwillingness to make a 3-year commitment to an intensive training program or to wait (as in the delayed treatment group) for training and materials. Once training began (workshops and on-site coaching), we lost far fewer participants. From the end of Year 1 to the end of Year 2, we retained 80% (165/208) of our participants.

2.2b. The Individual Teaching Plan was changed to the Individual Development Plan (IDP) because it is now completed by both teachers (ECEs) and directors.

During Year 2, the Project REEL Specialists assisted the ECEs and directors in Group A and Group B in completing the twelve IDPs that corresponded with the following formal training sessions topics: (1) Social and Emotional Development, (2) Oral Language Development, (2) Phonological/Phonemic Awareness,(2) Concepts about Books and Print, (1) Alphabetic Principle, (1) Comprehension and Motivation, (1) Emergent Writing, and (2) Early Numeracy Development. The Project REEL Specialists used the information pro-vided by the ECEs and directors during the Intensive and Supportive classroom coaching sessions. The average number IDPs completed is 6 per person with a total of 983 com-pleted for Group A and B. IDPs completed: Social and Emotional = 131, Oral Language 1 = 61, Oral Language 2 = 61, Phonological Awareness 1 = 101, Phonological Awareness 2 = 52, Books and Print 1 = 98, Books and Print 2 = 35, Alphabetic Principle = 100, Comprehension and Motivation = 92, Emergent Writing = 88, Numeracy 1 = 85, Numeracy 2 = 29. The numbers of completed IDPs is lower than our goal of 12 per person. This can be attributed to the drop out of participants, participants may have completed only one IDP for both topic sessions, and participants did not return a copy of the IDP to their Project REEL Specialists.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

2 . **Project Objective** [1] Check if this is a status update for the previous budget period.

Develop, refine and implement 12 early literacy training modules that will be disseminated to participants & group members, and be made available to ECEs locally, regionally, & nationally through the website.

2.3a. Performance Measure	Measure Type	Quantitative Data					
12 early literacy modules provided in a Project REEL	PROJ	Target			Actual Performance Data		
workshop manual		Raw Number	Ratio	%	Raw Number	Ratio	%
		12	/		12	/	
2.3b. Performance Measure	Measure Type			Quan	titative Data		
			4		4 . 15	B D 4	
	PROJ	Ta	ırget		Actual Peri	formance Data	
Project REEL training modules shared with local educators and available online for regional and national	PROJ	Raw Number	rget Ratio	%	Actual Peri Raw Number	Ratio	%

Explanation of Progress (Include Qualitative Data and Data Collection Information)

2.3a. During Year 2 the Co-Directors and Project Manager completed the 257 page, 6 chapter Trainer?s Guide. The Co-Directors and Project Manager completed the 243 page, 10 chapter Early Childhood Educator Manual.

2.3b. Project REEL training modules have been shared with 208 early childhood educators across the State of Tennessee. During Year 2, Project REEL modules were shared at the 2006 Chattanooga Area Association for the Education of Young Children (CAAEYC) winter conference, 2006 Tennessee Association for the Education of Young Children (TAEYC), the 2006 National Association for the Education Young Children (NAEYC) Conference, the 2006 National Council for Teachers of English (NCTE) annual conference, Parents are First Teachers, Society for Research in Child Development (SRCD), and the 2007 NAEYC Professional Development Institute. All Project REEL training modules are available online at www.utc.edu/reel.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

training guides of	ormance Data	
training guides of		
professional development sessions Raw Number Ratio Raw Number	Ratio	%
14 /	/	

Explanation of Progress (Include Qualitative Data and Data Collection Information)

2.4a. Train-the-Trainer sessions were videotaped, and these were utilized for training of new Specialists. Rather than provide videotaped topical seminars, a team of Project REEL Specialists developed 5 topical seminars for delivery in each of the 11 regions by the local Project REEL Specialist. In addition, the CCR&R Infant/Toddler Specialists were enlisted to develop a topical seminar addressing language and literacy development in infants and toddlers. This ensured that the content was consistent, but that delivery could be tailored to the local audience. These six seminars were a result of participant request and Specialist assessment.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

2 . **Project Objective** Il Check if this is a status update for the previous budget period.
Use the CCR&R network, TAEYC Conferences, and other dissemination venues to make ECEs state-wide aware of the self-study videos and training guides.

2.5a. Performance Measure	Measure Type		Quantitative Data					
Disseminate self-study videos and training guides	PROJ	Ta	rget		Actual Perf	ormance Data		
statewide		Raw Number	Ratio	%	Raw Number	Ratio	%	
			/			/		

Explanation of Progress (Include Qualitative Data and Data Collection Information)

2.5a. As Project REEL Specialists have transitioned into CCR&R Specialist positions, the Project REEL content framework and strategies have become more integrated into the work of the CCR&R. The Project REEL design has been adopted and implemented in face-to-face training and coaching sessions rather than utilizing a previous model of primarily seminar-based training. The videotapes have been deemed unnecessary and will not be developed.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

3 . **Project Objective** Il Check if this is a status update for the previous budget period. Provide training and support to ECEs in demonstrating increased knowledge and use of research-based strategies and assessments to promote school readiness.

3.0a. Performance Measure	Measure Type	Quantitative Data						
Train and support early childhood educators (ECEs)	PROJ	Target			Actual Performance Data			
ciliditood educators (ECES)		Raw Number	Ratio	%	Raw Number	Ratio	%	
		220	/		165	/		
3.0b. Performance Measure	Measure Type			Quan	ntitative Data			
in demonstrating increased	PROJ	Ta	arget		Actual Performance Data			
knowledge and use of research-based strategies and assessments to support school		Raw Number	Ratio	%	Raw Number	Ratio	%	
assessificities to support serious			1					

Explanation of Progress (Include Qualitative Data and Data Collection Information)

3.0 a. Before Group A began training, 366 ECEs from 90 settings across Tennessee were recruited to participate in Project REEL (with 90 directors, 31 of whom were acting as director/teachers). At the end of Year 1 (August, 2006), 208 teachers were participating in 72 settings (with 65 directors and 23 of those serving as director/teachers). At the end of Year 2

(August 2007), 165 ECEs in 69 settings completed training (with 68 directors, 25 of whom were serving as director/teachers). To accommodate for attrition, additional ECEs (beyond our ultimate target of 220, or 20 per region) were recruited initially, and new ECEs were added into Group B as necessary once training for Group A teachers had begun. We also met or talked with participants who indicated a desire or need to withdraw and attempted to resolve any issues under our control. From our original recruitment sample to the end of Year 1, we retained 57% (208/366) of our participants. Many of those who dropped during that time period did so due to unwillingness to make a 3-year commitment to an intensive training program or to wait (as in the delayed treatment group) for training and materials. Once training began (workshops and on-site coaching), we lost far fewer participants. From the end of Year 1 to the end of Year 2, we retained 80% (165/208) of our participants.

3.0b.

#### **ECTS**

During Year 2 the ECEs completed the Early Childhood Teacher Survey (ECTS), which is a self-rating scale with 87 questions divided into eight different subscales that measures the ECEs' classroom practices. The ECEs rate themselves on how often they use recommended strategies using a scale of 1 for never and up to 5 for always. If an item does not apply, ECEs have the option of marking the question not applicable. The 8 subscales for the ECTS are: 1) Organization and management of the learning environment; 2) Supporting children's oral language development; 3) Supporting children's understanding of the sounds of words in oral language; 4) Supporting children's awareness of the uses of print and how books work; 5) Supporting children's understanding of the alphabet; 6) Supporting children's interest and motivation to learn about print; 7) Supporting children's development of mathematical skills; and 8) Supporting children's development of writing skills. Our overall goal was a 4.5 or above (90%) for each subscale. During Spring 2007 the ratings averaged 4.08 meaning the ECEs reported using the recommended strategies at a rate of about 81.7% For print awareness and book knowledge, Group A ECEs rated themselves higher than Group B ECEs did, F (1,117) = 5.24, p<.05, partial eta2 = .04, but there were no significant differences on the other dimensions. Overall ratings (collapsed across group) for each dimension are shown below as percentage scores (average rating/5).

- 1. Organization & management of the learning environment 90%
- 2. Supporting oral language development 84%
- 3. Supporting understanding of sounds of language 73%
- 4. Supporting understanding of print & books 72%
- 5. Supporting understanding of alphabet 80%
- 6. Supporting interest and motivation about print 82%
- 7. Supporting mathematical skills 87%
- 8. Supporting writing skills 85%

We also examined the changes in Group A and Group B ECEs? ratings from Spring of 2006 to Spring of 2007 (only for those ECEs who rated themselves at both times).

For 7 of the 8 ECTS dimensions, ratings improved significantly for both groups. Dimension 1 (organization and management of the learning environment) did not show significant change, partly due to a ceiling effect (ratings averaged 87% in Spring 2006). For several dimensions, Group B ECEs rated themselves significantly higher than Group A teachers did, contrary to expectations that fully trained (Group A) ECEs would outperform Group B (partly trained) ECEs. Group effect sizes were generally small. All significant effects are shown in the table below.

Dimension Group N Spring 2006 Spring 2007 RM ANOVA statistics M (SD) M (SD) effect F df p eta2 Org & management A 61 85.07 (11.3) 87.71 (10.6) Group 3.38 (1,121) .01 .08 B 62 89.44 (9.0) 91.21 (6.5)

Oral language A 60 76.65 (12.2) 82.18 (11.3) Group 7.56 (1,120) .01 .06 B 62 80.91 (11.0) 86.17 (7.9) Time 19.44 (1,120) .001 .14

Sounds of language A 59 60.85 (19.2) 70.32 (16.9) Group 6.44 (1,119) .05 .05 B 62 67.81 (18.4) 75.54 (14.2) Time 17.98 (1,119) .001 .13

Print & Books A 58 54.97 (19.5) 68.97 (18.9) Group 6.57 (1,15) .05 .05 B 59 60.12 (18.9) 75.38 (14.6) Time 35.35 (1,115) .001 .24

Alphabet A 43 69.38 (19.5) 77.82 (20.5) Time 13.83 (1,88) .001 .14 B 47 72.73 (17.4) 82.87 (12.6)

Print Motivation A 56 70.06 (15.0) 80.79 (16.3) Time 27.07 (1,114) .001 .19 B 60 73.85 (15.0) 83.93 (11.9)

Math A 52 78.06 (15.3) 85.79 (11.0) Time 17.21 (1,106) .001 .14 B 56 82.43 (13.0) 88.11 (8.53)

Writing A 57 75.62 (18.3) 83.75 (16.8) Time 14.93 (1,116) .001 .11 B 61 78.82 (15.7) 85.84 (10.2)

**Strategy Checklists** 

During Year 2, the ECEs were objectively rated by the Specialists using the Strategy Checklist that examines ECEs' use of

every recommended research-based strategy, including items related to all 9 content areas (social-emotional, oral language, phonological awareness, print awareness, book concepts, alphabet, comprehension, writing, & numeracy). Strategy Checklists are based on cumulative hours of observation rather than a single observation period. There are three versions of the Strategy Checklist: Older (for preschool & pre-K children), Younger (for Infants and Toddlers), and Multi-age (for settings, typically family settings, that serve children from birth to 5). For most strategies, the specialist marked 0 for absent, 1 for using the strategy but needing improvement, or 2 for using the strategy well; a few items were scored as 0 (absent) or 1 (present). Scores reported be-low are average total scores, summing all scores of 1 and 2 across the entire strategy checklist. Overall, in Spring 2007, ECEs working with older children averaged 378.5 out of a possible 527 points (71.8%). Those working with younger children averaged 245.54 out of a possible 295, or 83.2%. Multi-age settings averaged 390.65 out of 561 points, or 69.6 %. There were no statistically significant differences by ECE group in Spring 2007. As shown below, Spring scores represented a significant improvement from Fall 2006 scores (for the Group A teachers who were rated twice), except for the multi-age version. Percent scores refer to average total scores/total possible scores on each scale.

Fall 2006 Spring 2007 RM ANOVA results
Mean (SD) % Mean (SD) % F (df) p partial eta2
Younger (N = 14) 217.57 (47.30) 73.8% 251.07 (36.15) 85.1% 34.44 (1,13) .001 .73
Older (N = 13) 348.08 (71.71) 66.0% 411.00 (90.70) 78.0% 19.68 (1,12) .01 .62
Multi-Age (N = 4) 278.75 (105.2) 49.7% 342.25 (113.0) 61.0% 7.68 (1,3) ns .72

# Pre-Post Workshop Knowledge Tests

Before each formal workshop topic and one week after (after the workshop and an opportunity to read the manual and practice some strategies), ECEs were tested on their knowledge of the topic and strategies for supporting development in that area. By the end of Year 2, pre-post knowledge data had been collected on 10 topics. Scores improved significantly for all topics (analyzed with separate repeated measures ANOVAs for each topic for ECEs with both pre-and post test scores). Results by topic are presented below.

Topic Pretest Posttest Repeated Measures ANOVA Statistics
N Mean SD N Mean SD N F p partial eta2
Supporting Social-emotional Development 214 55.47 (19.04) 178 64.97 (23.38) 162 1931.7 .000 .923
Supporting Oral Language Development 182 40.19 (16.21) 169 65.89 (22.48) 143 1741.0 .000 .925
Supporting Phonological Awareness 170 45.65 (15.14) 158 65.51 (22.43) 138 2079.1 .000 .938
Supporting Concepts about Print 152 57.63 (22.34) 147 76.19 (21.06) 117 2157.3 .000 .949
Supporting Concepts of Books 145 59.07 (21.06) 140 76.57 (26.19) 117 1449.7 .000 .926

Supporting Alphabetic Knowledge 171 40.94 (18.48) 163 63.37 (26.04) 147 1478.0 .000 .910

Supporting Comprehension and Motivation 168 54.52 (22.71) 142 71.40 (23.14) 139 1788.0 .000 .928 Supporting Emergent Writing 155 38.26 (16.99) 157 62.23 (28.14) 134 1097.8 .000 .892 Supporting Early Numeracy 165 59.96 (18.73) 178 81.84 (19.61) 117 2885.4 .000 .961 Integrating Literacy Materials 148 78.11 (21.68) 142 87.75 (19.91) 134 3198.1 .000 .960

#### Other measures

ECEs were provided with training in assessment, including administration of the Creative Curriculum Developmental Continuum, the Get Ready to Read Literacy Screening (GRTR), the Ages and Stages Questionnaire (ASQ), and the Preschool/Kindergarten Behavior Scales (PKBS). Even with training and support, ECEs had difficulty completing the Developmental Continuum, and only 102 were completed during Year 2 (the CCDC applies from birth to age 5). ECEs worked with parents to complete the ASQ which also applies from birth to age 5. ECEs were more successful in this endeavor, with 359 ASQs completed during year 2. ECEs used the ASQ results in planning and for parent-teacher conferences. The GRTR Literacy Screening applies to 4 year-olds only. ECEs were very successful in administering these, completing 240 in Fall 2006 and 272 in Spring of 2007. ECEs also completed a large number of PKBS ratings on 3 to 5 year-olds; 251 in Fall 2006 and 509 in Spring 2007.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

3 . **Project Objective** Il Check if this is a status update for the previous budget period. Establish demonstration sites in each of the CCR&R districts where participants can observe & participate in research-based strategies that support school readiness.

3.1a. Performance Measure	Measure Type			Qu	antitative Data		
Establish demonstration sites in each CCR&R district where		Ta	ırget		Actual Perf	ormance Data	
participants can observe and participate in research-based		Raw Number	Ratio	%	Raw Number	Ratio	%
teaching strategies that sup- port school readiness		11	/			/	

Explanation of Progress (Include Qualitative Data and Data Collection Information)

3.1a. Objective 3.1a and b addressed observation by ECEs of master teachers in model classrooms. As stated in 1.3b(1): Travel constraints in several of the larger regions were a barrier to observations. However, the most significant challenge was finding settings in each region where appropriate strategies were in use. It became apparent that time spent in improving and enriching the ECEs' classroom would be more effective than traveling to observation sites. We have increased the number of site coaching hours that each participant receives.

Group A and B also received 40 - 44 hours of intensive coaching, which consisted of Project REEL Specialists spending several hours a week with participants in their classroom modeling, coaching, and supporting implementation of strategies taught in formal sessions. Group A and B also received 30 -34 hours of supportive coaching, which consisted of Project REEL Specialists providing additional modeling, coaching, and support on specific strategies, and Specialists spent a portion of that time reinforcing the participants' appropriate use of new strategies. The remaining 18 hours will be completed during year 3.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

3 . **Project Objective** 11 Check if this is a status update for the previous budget period. Train 220 ECEs to analyze and reflect in writing on videotaped demonstrations of teaching strategies by master teachers.

3.2a. Performance Measure	Measure Type	Quantitative Data					
Train 220 early childhood educators (ECEs) to analyze	PROJ	Ta	rget		Actual Perf	ormance Data	
and reflect in writ-ing on videotaped demonstrations by		Raw Number	Ratio	%	Raw Number	Ratio	%
master teachers		220	/			/	

Explanation of Progress (Include Qualitative Data and Data Collection Information)

3.2a. Because a decision was made to increase coaching rather than develop videotapes, the ECEs will continue with use of IDPs for planning and reflection. Coaching from Project REEL Specialists will support the implementation of IDPs.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

3 . **Project Objective** 11 Check if this is a status update for the previous budget period.

Develop and implement specific learning experiences that reflect an understanding of effective strategies to support school readiness.

3.3a. Performance Measure	Measure Type	Quantitative Data					
ECEs will develop and implement specific learning	PROJ	Ta	rget		Actual Perfe	ormance Data	
experiences that reflect an understanding of effective		Raw Number	Ratio	%	Raw Number	Ratio	%
strategies to support school		12	/		12	/	
readiness.							

Explanation of Progress (Include Qualitative Data and Data Collection Information)

3.3a. The Individual Teaching Plan was changed to the Individual Development Plan (IDP) because it is now completed by both teachers (ECEs) and directors.

During Year 2, the Project REEL Specialists assisted the ECEs and directors in Group A and Group B in completing the twelve IDPs that corresponded with the following formal training sessions topics: (1) Social and Emotional Development, (2) Oral Language Development, (2) Phonological/Phonemic Awareness,(2) Concepts about Books and Print, (1) Alphabetic Principle, (1) Comprehension and Motivation, (1) Emergent Writing, and (2) Early Numeracy Development. The Project REEL Specialists used the information provided by the ECEs and directors during the Intensive and Supportive classroom coaching sessions. The average number of IDPs completed is 6 per person, with a total of 983 completed for Group A and B. IDPs completed: Social and Emotional = 131, Oral Language 1 = 61, Oral Language 2 = 61, Phonological Awareness 1 = 101, Phonological Awareness 2 = 52, Books and Print 1 = 98, Books and Print 2 = 35, Alphabetic Principle = 100, Comprehension and Motivation = 92, Emergent Writing = 88, Numeracy 1 = 85, Numeracy 2 = 29. The numbers of completed IDPs is lower than our goal of 12 per person. This can be attributed to the drop out of participants, participants

may have completed only one IDP for both topic sessions, and participants did not return a copy of the IDP to their Project REEL Specialists.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

3.4a. Performance Measure	Measure Type			Qua	antitative Data				
Train 220 early childhood	PROJ	Target			Actual Perf	Actual Performance Data			
educators (ECEs)		Raw Number	Ratio	%	Raw Number	Ratio	%		
		220	/		165	/			
Administer, analyze the	er, analyze the PROJ Target Actual Performance Data								
results of, and adjust classroom practices based on		Raw Number	Ratio	%	Raw Number	Ratio	%		
the results of appropriate diagnostic tools and assessments		rumber	/		rumber	/			

Explanation of Progress (Include Qualitative Data and Data Collection Information) Explanation of Progress (Include Qualitative Data and Data Collection Information)

3.4a. Before Group A began training, 366 ECEs from 90 settings across Tennessee were recruited to participate in Project

REEL (with 90 directors, 31 of whom were acting as director/teachers). At the end of Year 1 (August, 2006), 208 teachers were participating in 72 settings (with 65 directors and 23 of those serving as director/teachers). At the end of Year 2 (August 2007), 165 ECEs in 69 settings completed training (with 68 directors, 25 of whom were serving as director/teachers). To accommodate for attrition, additional ECEs (beyond our ultimate target of 220, or 20 per region) were recruited initially, and new ECEs were added into Group B as necessary once training for Group A teachers had begun. We also met or talked with participants who indicated a desire or need to withdraw and attempted to resolve any issues under our control. From our original recruitment sample to the end of Year 1, we retained 57% (208/366) of our participants. Many of those who dropped during that time period did so due to unwillingness to make a 3-year commitment to an intensive training program or to wait (as in the delayed treatment group) for training and materials. Once training began (workshops and on-site coaching), we lost far fewer participants. From the end of Year 1 to the end of Year 2, we retained 80% (165/208) of our participants.

3.4b.

ECEs were provided with training in assessment, including administration of the Creative Curriculum Developmental Continuum, the Get Ready to Read Literacy Screening, the Ages and Stages Questionnaire, and the Preschool/Kindergarten Behavior Scales. Even with training, ECEs had difficulty completing the Developmental Continuum, and only 102 were completed during Year 2 (the Developmental Continuum applies from birth to age 5). ECEs worked with parents to complete the Ages and Stages Questionnaires, which also applies from birth to age 5. ECEs were more successful in this endeavor, with 359 ASQs completed during year 2. ECEs used the ASQ results in planning and for parent-teacher conferences. The Get Ready to Read Literacy Screening applies to 4 year-olds only. ECEs were very successful in administering these, completing 240 in Fall 2006 and 272 in Spring of 2007 (there were 364 children in the appropriate age range to receive the GRTR screening). ECEs also completed a large number of PKBS ratings on 3 to 5 year-olds; 251 in Fall 2006 and 509 in Spring 2007.

Teachers received feedback from the evaluation team regarding the performance of children in their classroom/setting on the PPVT, EVT, and PALS, PreK alphabet and name writing subscales. Scores were given for each child with a classroom summary and suggestions for further evaluation or activities to support development, particularly for chil-dren who scored significantly below average.

The Creative Curriculum Implementation Checklists have subscales related to assessment and curriculum planning. From the Spring of 2006 to Spring of 2007, scores on this subscale improved significantly for the preschool and infant/toddler checklists (only scores for ECEs observed on both occasions are presented in the table). Fully trained ECEs (Group A = 70.1%) performed significantly better than partly trained ECEs (Group B = 43.3%) on the planning/evaluation/assessment subscale items in the Spring of 2007, F (1,32) = 5.20, p<.05, partial eta2 = .14.

Checklist N Spring 2006 Spring 2007 Preschool 34 29.68 (24.65) 56.68 (36.30) Infant/Toddler 27 49.38 (29.77) 76.54 (32.44) Family 12 52.78 (24.45) 63.89 (34.69)

The Strategy Checklists also contain items related to assessing and adjusting instruction based on assessments in each area of development. During Year 2, the ECEs were objectively rated by the Specialists using the Strategy Checklist that examines ECEs? use of every recommended research-based strategy, including items related to all 9 content areas (social-emotional, oral language, phonological awareness, print awareness, book concepts, alphabet, comprehension, writing, & numeracy). Strategy Checklists are based on cumulative hours of observation rather than a single observation period. There are three versions of the Strategy Checklist: Older (for preschool & pre-K children), Younger (for Infants and Toddlers), and Multi-age (for settings, typically family settings, that serve children from birth to 5). For most strategies, the specialist marked 0 for absent, 1 for using the strategy but needing improvement, or 2 for using the strategy well; a few items were scored as 0 (absent) or 1 (present). Scores reported below are average total scores, summing all scores of 1 and 2 across the entire strategy checklist. Overall, in Spring 2007, ECEs working with older children averaged 378.5 out of a possible 527 points (71.8%). Those working with younger children averaged 245.54 out of a possible 295, or 83.2%. Multi-age settings averaged 390.65 out of 561 points, or 69.6 %. There were no statisti-cally significant differences by ECE group in Spring 2007. As shown below, Spring scores represented a significant improvement from Fall 2006 scores (for the Group A teachers who were rated twice), except for the multi-age version. Percent scores refer to average total scores/total possible scores on each scale.

Fall 2006 Spring 2007 RM ANOVA results
Mean (SD) % Mean (SD) % F (df) p partial eta2
Younger (N = 14) 217.57 (47.30) 73.8% 251.07 (36.15) 85.1% 34.44 (1,13) .001 .73
Older (N = 13) 348.08 (71.71) 66.0% 411.00 (90.70) 78.0% 19.68 (1,12) .01 .62
Multi-Age (N = 4) 278.75 (105.2) 49.7% 342.25 (113.0) 61.0% 7.68 (1,3) ns .72



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

3 . **Project Objective** [1] Check if this is a status update for the previous budget period. Develop a support & dissemination website for ECEs and parents

3.5a. Performance Measure	Measure Type	Quantitative Data					
Develop a website for ECEs and parents	PROJ	Ta	rget		Actual Perfo	ormance Data	
ECES and parents		Raw Number	Ratio	%	Raw Number	Ratio	%
		1	/		1	/	
		,					

Explanation of Progress (Include Qualitative Data and Data Collection Information)

3.5a. Project REEL Specialists have access to Blackboard, an on-line service that allows distance learning, communication, and access to Project REEL resources. Project REEL training modules have been shared with 208 early childhood educators across the State of Tennessee. During Year 2, Project REEL modules were shared at the 2006 Chattanooga Area Association for the Education of Young Children (CAAEYC) winter conference, 2006 Tennessee Association for the Education of Young Children (TAEYC), the 2006 National Association for the Education Young Children (NAEYC) Conference, the 2006 National Council for Teachers of English (NCTE) annual conference, Parents are First Teachers, Society for Research in Child Development (SRCD), and the 2007 NAEYC Professional Development Institutes. All Project REEL training modules are available on-line at www.utc.edu/reel.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

4 . **Project Objective** Il Check if this is a status update for the previous budget period. Increase the frequency of use of research-based classroom learning experiences that promote language/literacy, numeracy, and social/emotional development among diverse early learners through training and support to ECEs.

4.0a. Performance Measure	Measure Type			Qua	antitative Data			
Training and support of early childhood educators (ECEs)	PROJ	Ta	rget		Actual Perfo	ormance Data		
childhood educators (ECES)		Raw Number	Ratio	%	Raw Number	Ratio	%	
		220	/		165	/		
4.0b. Performance Measure	Measure Type			Qua	antitative Data			
Increase use of research-based	PROJ	Target			Actual Performance Data			
classroom learning experiences that promote		Raw	Ratio	%	Raw Number	Ratio	%	
school readiness among	1 1	Number			Number			

Explanation of Progress (Include Qualitative Data and Data Collection Information)

4.0a. Before Group A began training, 366 ECEs from 90 settings across Tennessee were recruited to participate in Project REEL (with 90 directors, 31 of whom were acting as director/teachers). At the end of Year 1 (August, 2006), 208 teachers were participating in 72 settings (with 65 directors and 23 of those serving as director/teachers). At the end of Year 2

(August 2007), 165 ECEs in 69 settings completed training (with 68 directors, 25 of whom were serving as director/teachers). To accommodate for attrition, additional ECEs (beyond our ultimate target of 220, or 20 per region) were recruited initially, and new ECEs were added into Group B as necessary once training for Group A teachers had begun. We also met or talked with participants who indicated a desire or need to withdraw and attempted to resolve any issues under our control. From our original recruitment sample to the end of Year 1, we retained 57% (208/366) of our participants. Many of those who dropped during that time period did so due to unwillingness to make a 3-year commitment to an intensive training program or to wait (as in the delayed treatment group) for training and materials. Once training began (workshops and on-site coaching), we lost far fewer participants. From the end of Year 1 to the end of Year 2, we retained 80% (165/208) of our participants.

4.0b.

#### **ELLCO**

During Year 2, the Project REEL Specialists completed the Early Language and Literacy Classroom Observation (ELLCO) in participating preschool classrooms. Our overall goal is to have 100% of the teachers score above a 3.5, which is classified as high quality support. During Spring 2006 we had a mean of 3.13 with 40% of classrooms categorized as providing high quality support, by Spring 2007 that had increased to 3.78 with 64 % of all classrooms providing high quality support. Fully trained teachers (Group A = 73%) were more likely than partly trained teachers (Group B = 58%) to be providing high quality support in the Spring of 2007. On the Literacy Activity Rating Scale our goal is to be at 100%. In Spring 2006 the overall score was 48%, and had improved to 61.3% by Spring 2007. Averages on the ELLCO subscales during Spring 2006 and Spring 2007 are com-pared below.

Classroom Observation Percent Score (sum/total possible)

Spring 2006: N = 83 M = 62.67% (13.48)

Spring 2007: N = 59 M = 75.67% (14.21)

Literacy Environment Checklist Percent Score (sum/total possible)

Spring 2006: N = 83 M = 54.10% (17.26)

Spring 2007: N = 60 M = 68.98% (14.70)

Literacy Activity Rating Scale Percent Score (sum/total possible)

Spring 2006: N = 82 M = 42.57% (25.31)

Spring 2007: N = 59 M = 61.33% (21.12)

When we examined only those ECEs with ELLCO scores in both Fall and Spring (n = 36) using Repeated Measures ANOVAs comparing Group A and Group B, we found significant improvement for all ELLCO subscales, but no Group differences or time by Group interactions. The ANOVA results for the effect of time are reported below.

Subscale F (df) p partial eta2

Classroom Observation 28.46 (1,34) .001 .46 Literacy Environment Checklist 35.14 (1,34) .001 .51 Literacy Activity Rating Scale 16.69 (1,33) .001 .34

Below, our results are compared to those from the NEQRC/LEEP data, as required by GPRA. We report the percentage of our ECEs who perform AT OR ABOVE THE MEAN of the NEQRC/LEEP data. Group A ECEs scored slightly, but not significantly, higher than Group B (partly trained) ECEs.

Classroom Observation Scale % at/above NEQRC (3.15) Means

Group A: 23/26 = 88% 3.91 (.78) Group B: 24/34 = 71% 3.69 (.65) Overall: 47/59 = 80% 3.78 (.71)

Literacy Environment Checklist Sum % at/above NEQRC (21.57) Means

Group A: 24/26 = 92% 28.77 (5.85) Group B: 28/34 = 82% 27.91 (6.22) Overall: 52/60 = 87% 28.28 (6.03)

Literacy Activity Rating Scale Sum % at/above NEQRC (5.80) Means

Group A: 23/26 = 88% 8.85 (2.68) Group B: 23/33 = 70% 7.85 (2.39) Overall: 46/59 = 78% 8.29 (2.55)

# Creative Curriculum Implementation Checklists

During Year 2 we used the Creative Curriculum Implementation Checklists to measure implementation of developmentally appropriate classroom practices for all ECEs (Groups A and B). The targeted goal for full implementation on the Creative Curriculum Implementation Checklists is 85%. The results are shown below.

Preschool Implementation Checklist

Spring 2006: N = 83; M = 61.16 (18.61); Classrooms fully implemented = 7 (8%) Spring 2007: N = 55; M = 75.52 (16.62); Classrooms fully implemented = 15 (27%)

Infant/Toddler Implementation Checklist

```
Spring 2006: N = 75; M = 65.05 (16.25); Classrooms fully implemented = 9 (12%) Spring 2007: N = 56; M = 76.60 (13.78); Classrooms fully implemented = 20 (36%)
```

Family Child Care Implementation Checklist

```
Spring 2006: N = 22; M = 74.42 (12.58); Classrooms fully implemented = 6 (27%)
Spring 2007: N = 23; M = 82.11 (10.48); Classrooms fully implemented = 10 (43%)
```

Overall

```
Spring 2006: N = 180; Classrooms fully implemented = 22 (12%)
Spring 2007: N = 134; Classrooms fully implemented = 45 (34%)
```

Examining improvement by Group (A = fully trained and B = partly trained) in only those ECEs who were observed on both occasions, we found significant improvement on all checklists for both groups. In addition, for the Infant-Toddler Checklist, there was a significant interaction between Time and Group, showing that Group A ECEs improved significantly more than Group B ECEs.

**Preschool Implementation Checklist** 

Training Group Mean Std. Deviation N PSIC Percent Spr 06 A 70.9657 14.11649 17 B 66.7191 20.57046 17 Total 68.8424 17.50497 34 PSIC Percent\_Spr 07 A 80.9059 16.62466 17 B 69.2985 11.65797 17 Total 75.1022 15.31668 34

Time x Group: F(1,32) = 1.51, ns, partial ??2 = .05, power = .22 Time: F(1,32) = 4.35, p < .05, partial ??2 = .12, power = .53 Group: F(1,32) = 2.93, ns, partial ??2 = .08, power = .38

Infant Toddler Implementation Checklist V

Training Group Mean Std. Deviation N ITIC Percent\_Spr 06 A 70.1339 13.45661 14 B 71.7788 13.62358 13

Total 70.9259 13.30053 27 ITIC Percent Spr 07 A 84.0179 10.90197 14 B 72.7885 13.68739 13 Total 78.6111 13.36360 27

Time x Group: F(1,25) = 6.49, p < .05, partial ??2 = .21, power = .69 Time: F(1,25) = 8.69, p < .01, partial ??2 = .26, power = .81 Group: F(1,25) = 1.24, ns, partial ??2 = .05, power = .19

### Family Child Care Checklist

Training Group Mean Std. Deviation N FCCIC Percent\_Spr 06 A 76.0227 7.63650 4 B 76.8182 6.58699 8 Total 76.5530 6.60822 12 FCCIC Percent Spr 07 B 84.0909 7.28219 4 2 80.6250 12.24971 8 Total 81.7803 10.62378 12

Time x Group: F(1,10) = .45, ns, partial ??2 = .04, power = .09 Time: F(1,10) = 3.51, ns, partial ??2 = .26, power = .40 Group: F(1,10) = .08, ns, partial ??2 = .01, power = .06

#### **Strategy Checklists**

During Year 2, the ECEs were objectively rated by the Specialists using the Strategy Checklist that examines ECEs use of every recommended research-based strategy, including items related to all 9 content areas (social-emotional, oral language, phonological awareness, print awareness, book concepts, alphabet, comprehension, writing, & numeracy). Strategy Checklists are based on cumulative hours of observation rather than a single observation period. There are three versions of the Strategy Checklist: Older (for preschool & pre-K children), Younger (for Infants and Toddlers), and Multi-age (for settings, typically family settings, that serve children from birth to 5). For most strategies, the specialist marked 0 for absent, 1 for using the strategy but needing improvement, or 2 for using the strategy well; a few items were scored as 0 (absent) or 1 (present). Scores reported be-low are average total scores, summing all scores of 1 and 2 across the entire strategy checklist. Overall, in Spring 2007, ECEs working with older children averaged 378.5 out of a possible 527 points (71.8%). Those

working with younger children averaged 245.54 out of a possible 295, or 83.2%. Multi-age settings averaged 390.65 out of 561 points, or 69.6 %. There were no statistically significant differences by ECE group in Spring 2007. As shown below, Spring scores represented a significant improvement from Fall 2006 scores (for the Group A teachers who were rated twice), except for the multi-age version. Percent scores refer to average total scores/total possible scores on each scale.

 $\label{eq:fall 2006 Spring 2007 RM ANOVA results} \\ \text{Mean (SD) \% Mean (SD) \% F (df) p partial eta2} \\ \text{Younger (N = 14) 217.57 (47.30) 73.8\% 251.07 (36.15) 85.1\% 34.44 (1,13) .001 .73} \\ \text{Older (N = 13) 348.08 (71.71) 66.0\% 411.00 (90.70) 78.0\% 19.68 (1,12) .01 .62} \\ \text{Multi-Age (N = 4) 278.75 (105.2) 49.7\% 342.25 (113.0) 61.0\% 7.68 (1,3) ns .72} \\ \end{aligned}$ 

#### **ECTS**

During Year 2 the ECEs completed the Early Childhood Teacher Survey (ECTS), which is a self-rating scale with 87 questions divided into eight different subscales that measures the ECEs' classroom practices. The ECEs rate themselves on how often they use recommended strategies using a scale of 1 for never and up to 5 for always. If an item does not apply, ECEs have the option of marking the question not applicable. The 8 subscales for the ECTS are: 1) Organization and management of the learning environment; 2) Supporting children's oral language development; 3) Supporting children's understanding of the sounds of words in oral language; 4) Supporting children's awareness of the uses of print and how books work; 5) Supporting children's understanding of the alphabet; 6) Supporting children's interest and motivation to learn about print; 7) Supporting children's development of mathematical skills; and 8) Supporting children's development of writing skills. Our overall goal was a 4.5 or above (90%) for each subscale. During Spring 2007 the ratings averaged 4.08 meaning the ECEs reported using the recommended strategies at a rate of about 81.7% For print awareness and book knowledge, Group A ECEs rated themselves higher than Group B ECEs did, F (1,117) = 5.24, p<.05, partial eta2 = .04, but there were no significant differences on the other dimensions. Overall ratings (collapsed across group) for each dimension are shown below as percentage scores (average rating/5).

- 1. Organization & management of the learning environment 90%
- 2. Supporting oral language development 84%
- 3. Supporting understanding of sounds of language 73%
- 4. Supporting understanding of print & books 72%
- 5. Supporting understanding of alphabet 80%
- 6. Supporting interest and motivation about print 82%
- 7. Supporting mathematical skills 87%
- 8. Supporting writing skills 85%

We also examined the changes in Group A and Group B ECEs' ratings from Spring of 2006 to Spring of 2007 (only for those ECEs who rated themselves at both times).

For 7 of the 8 ECTS dimensions, ratings improved significantly for both groups. Dimension 1 (organization and management of the learning environment) did not show significant change, partly due to a ceiling effect (ratings averaged 87% in Spring 2006). For several dimensions, Group B ECEs rated themselves significantly higher than Group A teachers did, contrary to expectations that fully trained (Group A) ECEs would outperform Group B (partly trained) ECEs. Group effect sizes were generally small. All significant effects are shown in the table below.

Dimension Group N Spring 2006 Spring 2007 RM ANOVA statistics M (SD) M (SD) effect F df p eta2 Org & management A 61 85.07 (11.3) 87.71 (10.6) Group 3.38 (1,121) .01 .08 B 62 89.44 (9.0) 91.21 (6.5)

Oral language A 60 76.65 (12.2) 82.18 (11.3) Group 7.56 (1,120) .01 .06 B 62 80.91 (11.0) 86.17 (7.9) Time 19.44 (1,120) .001 .14

Sounds of language A 59 60.85 (19.2) 70.32 (16.9) Group 6.44 (1,119) .05 .05 B 62 67.81 (18.4) 75.54 (14.2) Time 17.98 (1,119) .001 .13

Print & Books A 58 54.97 (19.5) 68.97 (18.9) Group 6.57 (1,15) .05 .05 B 59 60.12 (18.9) 75.38 (14.6) Time 35.35 (1,115) .001 .24

Alphabet A 43 69.38 (19.5) 77.82 (20.5) Time 13.83 (1,88) .001 .14 B 47 72.73 (17.4) 82.87 (12.6)

Print Motivation A 56 70.06 (15.0) 80.79 (16.3) Time 27.07 (1,114) .001 .19 B 60 73.85 (15.0) 83.93 (11.9)

Math A 52 78.06 (15.3) 85.79 (11.0) Time 17.21 (1,106) .001 .14 B 56 82.43 (13.0) 88.11 (8.53)

Writing A 57 75.62 (18.3) 83.75 (16.8) Time 14.93 (1,116) .001 .11 B 61 78.82 (15.7) 85.84 (10.2)

#### **IDEAL**

During Year 2, the Improving the Daily Environment for Access to Literacy and Numeracy (IDEAL-N), was completed for all participating ECEs. The IDEAL-N rates the learn-ing environment through a 129 question checklist. The subscales for the IDEAL-N are as follows: 1) Infants; 2) Toddlers; 3) Preschool- General; 4) Recommended Learning Centers: a)

Reading/Literacy; b) Writing; c) Computer; d) Art; e) Music & Movement; f) Dramatic Play; g) Sand & Water; h) Block; i)

Math; 5) Other Learning Centers. Our overall goal is 100% for each subscale. Below, that baseline is compared to the average percentage of recommended materials/resources and learning centers present in Spring 2007.

Spring 2006 Spring 2007

Infants 85% 98%

Toddlers 79% 82%

Preschool !V General 39% 59%

Recommended Learning Centers 72% 78%

Reading/Library 54% 67%

Writing 47% 66%

Computer 20% 31%

Art 71% 80%

Music & Movement 70% 73%

Dramatic Play 65% 77%

Sand & Water 61% 84%

Blocks 39% 53%

Math 42% 57%



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

4 . **Project Objective** [1] Check if this is a status update for the previous budget period. Provide appropriate literacy materials for 220 early childhood classrooms to facilitate the development and implementation of research-based learning experiences.

4.1a. Performance Measure	Measure Type	Quantitative Data					
Provide literacy materials for 220 early childhood	PROJ	Ta	rget		Actual Perfe	ormance Data	
classrooms/settings		Raw Number	Ratio	%	Raw Number	Ratio	%
		220	/		165	/	

Explanation of Progress (Include Qualitative Data and Data Collection Information)

4.1a. During Year 2, Group A and B ECEs received \$1,000 in literacy materials after they complete milestones in their training.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

4.2a. Performance Measure	Measure Type	Quantitative Data					
Provide 11 Curriculum Consultants to observe and	PROJ	Ta	rget		Actual Perfe	ormance Data	
support early childhood educators (ECEs)		Raw Number	Ratio	%	Raw Number	Ratio	%
, ,		11	/		11	/	

Explanation of Progress (Include Qualitative Data and Data Collection Information)

4.2a. Provide 11 Curriculum Consultants to observe and support ECEs. We have changed their title to Project REEL Specialists. The 11 Project REEL Specialists were hired through the Child Care Resource and Referral (CCR&R) Network and are located within each CCR&R site. The regions are as follows: Davidson, East North (EN), East South (ES), Mid-Cumberland (MC), North West (NW), Shelby, South Central (SC), South East (SE), South West (SW), Upper Cumberland (UC) and Upper East (UE). During Year 2 the one vacant Project REEL position in UE was filled and all 11 Project REEL Specialists were working with the ECEs across the State of Tennessee. We did experience some Project REEL Specialist turnover in 4 CCR&R regions. In the NW region, the Project REEL Specialist moved to a permanent position within the CCR&R network, and she currently serves as a liaison between the CCR&R Network and the Project. Before she moved into the CCR&R Network position she was able to train her Project REEL replacement. The UE position that was vacant at the end of Year 1 has had 2 Project REEL Specialists. The first replacement moved into a permanent CCR&R Specialist position, and she was able to train her Project REEL Specialist replacement. The Project REEL Specialist from ES left her position in April 2007 to pursue another job opportunity. This position was replaced by a Project REEL Specialist from the

EN region. She was already familiar with Project REEL, and she transitioned into the ES CCR&R Project REEL position. The EN position was left vacant and this position will not be replaced since the Project is in the last year. The EN Coordinator and the other CRR&R Specialist from that region (one who is the former Project REEL Specialist) have taken over the job duties of the Project REEL Specialist job. Each CCR&R office sent additional CCR&R Specialists to the Project REEL Specialists? training to insure that someone else on staff was trained and familiar with Project REEL.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

4 . **Project Objective** [1] Check if this is a status update for the previous budget period. Train 220 ECEs to develop a classroom management plan that promotes positive guidance and the development of appropriate social skills.

Measure Type			Qu	antitative Data			
PROJ	Target			Actual Performance Data			
	Raw Number	Ratio	%	Raw Number	Ratio	%	
	220	/		165	/		
Type	TD.		Qu		D /		
PROJ	Ta	rget		Actual Perf	ormance Data		
	Raw Number	Ratio	%	Raw Number	Ratio	%	
I k							
	Type PROJ Measure	PROJ Ta Raw Number  220  Measure Type PROJ Ta Raw Namber	PROJ Target  Raw Number 220 /  Measure Type PROJ Target  Ray Ratio	Type PROJ Target  Raw Number 220 /  Measure Type PROJ Target  Raw Ratio %  Quantity Target  Raw Ratio %	Type  PROJ Target Raw Number Ratio V Raw Number  220 / 165  Measure Type  PROJ Target Raw Ratio Quantitative Data Actual Perf Raw Ratio Raw Ratio Raw Ratio Raw Ratio Raw Ratio Raw Ratio Raw	Type  PROJ Target Actual Performance Data  Raw Number Ratio % Raw Number  220 / 165 /  Measure Type  PROJ Target Actual Performance Data  Actual Performance Data  Raw Ratio Raw Ratio Raw Ratio	

Explanation of Progress (Include Qualitative Data and Data Collection Information)

4.3a. Before Group A began training, 366 ECEs from 90 settings across Tennessee were recruited to participate in Project REEL (with 90 directors, 31 of whom were acting as director/teachers). At the end of Year 1 (August, 2006), 208 teachers were participating in 72 settings (with 65 directors and 23 of those serving as director/teachers). At the end of Year 2

(August 2007), 165 ECEs in 69 settings completed training (with 68 directors, 25 of whom were serving as director/teachers). To accommodate for attrition, additional ECEs (beyond our ultimate target of 220, or 20 per region) were recruited initially, and new ECEs were added into Group B as necessary once training for Group A teachers had begun. We also met or talked with participants who indicated a desire or need to withdraw and attempted to resolve any issues under our control. From our original recruitment sample to the end of Year 1, we retained 57% (208/366) of our participants. Many of those who dropped during that time period did so due to unwillingness to make a 3-year commitment to an intensive training program or to wait (as in the delayed treatment group) for training and materials. Once training began (workshops and on-site coaching), we lost far fewer participants. From the end of Year 1 to the end of Year 2, we retained 80% (165/208) of our participants.

4.3b. Positive guidance and management were embedded in all of the modules. The ECEs included management strategies as they implemented literacy and numeracy plans. A separate management plan was not needed, as this was integrated into all aspects of their planning, implementation, and reflection. In addition, two of the topical seminars pro-vided additional management strategies.

The Individual Teaching Plan was changed to the Individual Development Plan (IDP) because it is now completed by both teachers (ECEs) and directors.

During Year 2, the Project REEL Specialists assisted the ECEs and directors in Group A and Group B in completing the twelve IDPs that corresponded with the following formal training sessions topics: (1) Social and Emotional Development, (2) Oral Language Development, (2) Phonological/Phonemic Awareness,(2) Concepts about Books and Print, (1) Alphabetic Principle, (1) Comprehension and Motivation, (1) Emergent Writing, and (2) Early Numeracy Development. The Project REEL Specialists used the information provided by the ECEs and directors during the Intensive and Supportive classroom coaching sessions. The average number IDPs completed is 6 per person with a total of 983 com-pleted for Group A and B. IDPs completed: Social and Emotional = 131, Oral Language 1 = 61, Oral Language 2 = 61, Phonological Awareness 1 = 101, Phonological Awareness 2 = 52, Books and Print 1 = 98, Books and Print 2 = 35, Alphabetic Principle = 100, Comprehension and Motivation = 92, Emergent Writing = 88, Numeracy 1 = 85, Numeracy 2 = 29. The numbers of completed IDPs is lower than our goal of 12 per person. This can be attributed to the drop out of participants, participants may have completed only one IDP for both topic sessions, and participants did not return a copy of the IDP to their Project REEL Specialists.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

4 . **Project Objective** Il Check if this is a status update for the previous budget period. Increase frequency that 220 ECEs apply research-based approaches in early childhood pedagogy and child development and learning domains.

4.4a. Performance Measure	Measure Type	Quantitative Data					
Increase frequency that 220 ECEs apply research-based	PROJ	Ta	rget		Actual Perf	ormance Data	
approaches in early childhood pedagogy and child		Raw Number	Ratio	%	Raw Number	Ratio	%
development and learning domains.			/			/	

Explanation of Progress (Include Qualitative Data and Data Collection Information) 4.4a.

#### **ELLCO**

During Year 2, the Project REEL Specialists completed the Early Language and Literacy Classroom Observation (ELLCO) in participating preschool classrooms. Our overall goal is to have 100% of the teachers score above a 3.5, which is classified as high quality support During Spring 2006 we had a mean of 3.13 with 40% of classrooms categorized as providing high quality support, by Spring 2007 that had increased to 3.78 with 64 % of all classrooms providing high quality support. Fully trained teachers (Group A = 73%) were more likely than partly trained teachers (Group B = 58%) to be providing high quality support in the Spring of 2007. On the Literacy Activity Rating Scale our goal is to be at 100%. In Spring 2006 the overall score was 48%, and had improved to 61.3% by Spring 2007. Averages on the ELLCO subscales during Spring 2006 and Spring 2007 are com-pared below.

```
Classroom Observation Percent Score (sum/total possible)
```

```
Spring 2006: N = 83 M = 62.67% (13.48)
Spring 2007: N = 59 M = 75.67% (14.21)
```

Literacy Environment Checklist Percent Score (sum/total possible)

Spring 2006: N = 83 M = 54.10% (17.26) Spring 2007: N = 60 M = 68.98% (14.70)

Literacy Activity Rating Scale Percent Score (sum/total possible)

Spring 2006: N = 82 M = 42.57% (25.31) Spring 2007: N = 59 M = 61.33% (21.12)

When we examined only those ECEs with ELLCO scores in both Fall and Spring (n = 36) using Repeated Measures ANOVAs comparing Group A and Group B, we found signifi-cant improvement for all ELLCO subscales, but no Group differences or time by Group interactions. The ANOVA results for the effect of time are reported below.

Subscale F (df) p partial eta2 Classroom Observation 28.46 (1,34) .001 .46 Literacy Environment Checklist 35.14 (1,34) .001 .51 Literacy Activity Rating Scale 16.69 (1,33) .001 .34

Below, our results are compared to those from the NEQRC/LEEP data, as required by GPRA. We report the percentage of our ECEs who perform AT OR ABOVE THE MEAN of the NEQRC/LEEP data. Group A ECEs scored slightly, but not significantly, higher than Group B (partly trained) ECEs.

Classroom Observation Scale % at/above NEQRC (3.15) Means

Group A: 23/26 = 88% 3.91 (.78) Group B: 24/34 = 71% 3.69 (.65) Overall: 47/59 = 80% 3.78 (.71)

Literacy Environment Checklist Sum % at/above NEQRC (21.57) Means

Group A: 24/26 = 92% 28.77 (5.85) Group B: 28/34 = 82% 27.91 (6.22) Overall: 52/60 = 87% 28.28 (6.03)

Literacy Activity Rating Scale Sum % at/above NEQRC (5.80) Means

Group A: 23/26 = 88% 8.85 (2.68) Group B: 23/33 = 70% 7.85 (2.39) Overall: 46/59 = 78% 8.29 (2.55)

#### Creative Curriculum Implementation Checklists

During Year 2 we used the Creative Curriculum Implementation Checklists to measure implementation of developmentally appropriate classroom practices for all ECEs (Groups A and B). The targeted goal for full implementation on the Creative Curriculum Implementation Checklists is 85%. The results are shown below.

#### Preschool Implementation Checklist

```
Spring 2006: N = 83; M = 61.16 (18.61); Classrooms fully implemented = 7 (8%) Spring 2007: N = 55; M = 75.52 (16.62); Classrooms fully implemented = 15 (27%)
```

#### Infant/Toddler Implementation Checklist

```
Spring 2006: N = 75; M = 65.05 (16.25); Classrooms fully implemented = 9 (12%) Spring 2007: N = 56; M = 76.60 (13.78); Classrooms fully implemented = 20 (36%)
```

#### Family Child Care Implementation Checklist

```
Spring 2006: N = 22; M = 74.42 (12.58); Classrooms fully implemented = 6 (27%) Spring 2007: N = 23; M = 82.11 (10.48); Classrooms fully implemented = 10 (43%)
```

#### Overall

```
Spring 2006: N = 180; Classrooms fully implemented = 22 (12%)
Spring 2007: N = 134; Classrooms fully implemented = 45 (34%)
```

Examining improvement by Group (A = fully trained and B = partly trained) in only those ECEs who were observed on both occasions, we found significant improvement on all checklists for both groups. In addition, for the Infant-Toddler Checklist, there was a significant interaction between Time and Group, showing that Group A ECEs improved sig-nificantly more than Group B ECEs.

#### Preschool Implementation Checklist

Training Group Mean Std. Deviation N PSIC Percent Spr 06 A 70.9657 14.11649 17 B 66.7191 20.57046 17 Total 68.8424 17.50497 34

PSIC Percent\_Spr 07 A 80.9059 16.62466 17 B 69.2985 11.65797 17 Total 75.1022 15.31668 34

Time x Group: F(1,32) = 1.51, ns, partial ??2 = .05, power = .22 Time: F(1,32) = 4.35, p < .05, partial ??2 = .12, power = .53 Group: F(1,32) = 2.93, ns, partial ??2 = .08, power = .38

Infant Toddler Implementation Checklist !V

Training Group Mean Std. Deviation N ITIC Percent\_Spr 06 A 70.1339 13.45661 14 B 71.7788 13.62358 13 Total 70.9259 13.30053 27 ITIC Percent Spr 07 A 84.0179 10.90197 14 B 72.7885 13.68739 13 Total 78.6111 13.36360 27

Time x Group: F(1,25) = 6.49, p < .05, partial ??2 = .21, power = .69 Time: F(1,25) = 8.69, p < .01, partial ??2 = .26, power = .81 Group: F(1,25) = 1.24, ns, partial ??2 = .05, power = .19

Family Child Care Checklist

Training Group Mean Std. Deviation N FCCIC Percent\_Spr 06 A 76.0227 7.63650 4 B 76.8182 6.58699 8 Total 76.5530 6.60822 12 FCCIC Percent Spr 07 B 84.0909 7.28219 4 2 80.6250 12.24971 8 Total 81.7803 10.62378 12

Time x Group: F(1,10) = .45, ns, partial ??2 = .04, power = .09 Time: F(1,10) = 3.51, ns, partial ??2 = .26, power = .40 Group: F(1,10) = .08, ns, partial ??2 = .01, power = .06

#### **ECTS**

During Year 2 the ECEs completed the Early Childhood Teacher Survey (ECTS), which is a self-rating scale with 87 questions divided into eight different subscales that measures the ECEs! classroom practices. The ECEs rate themselves on how often they use recommended strategies using a scale of 1 for !?never!? and up to 5 for !?always!?. If an item does not apply, ECEs have the option of marking the question !?not applicable!?. The 8 subscales for the ECTS are: 1) Organization and management of the learning environment; 2) Supporting children!|s oral language development; 3) Supporting children! sunderstanding of the sounds of words in oral language; 4) Supporting children!|s awareness of the uses of print and how books work; 5) Supporting children!|s understanding of the alphabet; 6) Supporting children!|s interest and motivation to learn about print; 7) Supporting children!|s development of mathematical skills; and 8) Supporting children!|s development of writing skills. Our overall goal was a 4.5 or above (90%) for each subscale. During Spring 2007 the ratings averaged 4.08 meaning the ECEs reported using the recommended strategies at a rate of about 81.7% For print awareness and book knowledge, Group A ECEs rated themselves higher than Group B ECEs did, F (1,117) = 5.24, p<.05, partial eta2 = .04, but there were no significant differences on the other dimensions. Overall ratings (collapsed across group) for each dimension are shown below as percentage scores (average rating/5).

- 1. Organization & management of the learning environment 90%
- 2. Supporting oral language development 84%
- 3. Supporting understanding of sounds of language 73%
- 4. Supporting understanding of print & books 72%
- 5. Supporting understanding of alphabet 80%
- 6. Supporting interest and motivation about print 82%
- 7. Supporting mathematical skills 87%
- 8. Supporting writing skills 85%

We also examined the changes in Group A and Group B ECEs! ratings from Spring of 2006 to Spring of 2007 (only for those ECEs who rated themselves at both times).

For 7 of the 8 ECTS dimensions, ratings improved significantly for both groups. Dimension 1 (organization and management of the learning environment) did not show significant change, partly due to a ceiling effect (ratings averaged 87% in Spring 2006). For several dimensions, Group B ECEs rated themselves significantly higher than Group A teachers did, contrary to expectations that fully trained (Group A) ECEs would outperform Group B (partly trained) ECEs. Group effect sizes were generally small. All significant effects are shown in the table below.

Dimension Group N Spring 2006 Spring 2007 RM ANOVA statistics M (SD) M (SD) effect F df p eta2

Org & management A 61 85.07 (11.3) 87.71 (10.6) Group 3.38 (1,121) .01 .08 B 62 89.44 (9.0) 91.21 (6.5)

Oral language A 60 76.65 (12.2) 82.18 (11.3) Group 7.56 (1,120) .01 .06 B 62 80.91 (11.0) 86.17 (7.9) Time 19.44 (1,120) .001 .14

Sounds of language A 59 60.85 (19.2) 70.32 (16.9) Group 6.44 (1,119) .05 .05 B 62 67.81 (18.4) 75.54 (14.2) Time 17.98 (1,119) .001 .13

Print & Books A 58 54.97 (19.5) 68.97 (18.9) Group 6.57 (1,15) .05 .05 B 59 60.12 (18.9) 75.38 (14.6) Time 35.35 (1,115) .001 .24

Alphabet A 43 69.38 (19.5) 77.82 (20.5) Time 13.83 (1,88) .001 .14 B 47 72.73 (17.4) 82.87 (12.6)

Print Motivation A 56 70.06 (15.0) 80.79 (16.3) Time 27.07 (1,114) .001 .19 B 60 73.85 (15.0) 83.93 (11.9)

Math A 52 78.06 (15.3) 85.79 (11.0) Time 17.21 (1,106) .001 .14 B 56 82.43 (13.0) 88.11 (8.53)

Writing A 57 75.62 (18.3) 83.75 (16.8) Time 14.93 (1,116) .001 .11 B 61 78.82 (15.7) 85.84 (10.2)

**Strategy Checklists** 

During Year 2, the ECEs were objectively rated by the Specialists using the Strategy Checklist that examines ECEs! use of every recommended research-based strategy, including items related to all 9 content areas (social-emotional, oral language, phonological awareness, print awareness, book concepts, alphabet, comprehension, writing, & numeracy). Strategy Checklists are based on cumulative hours of observation rather than a single observation period. There are three versions of the Strategy Checklist: Older (for preschool & pre-K children), Younger (for Infants and Toddlers), and Multi-age (for settings, typically family settings, that serve children from birth to 5). For most strategies, the specialist marked 0 for absent, 1 for using the strategy but needing improvement, or 2 for using the strategy well; a few items were scored as 0 (absent) or 1 (present). Scores reported be-low are average total scores, summing all scores of 1 and 2 across the entire strategy checklist. Overall, in Spring 2007, ECEs working with older children averaged 378.5 out of a possible 527 points (71.8%). Those working with younger children averaged 245.54 out of a possible 295, or 83.2%. Multi-age settings averaged 390.65 out of 561 points, or 69.6 %. There were no statistically significant differences by ECE group in Spring 2007. As shown below,

Spring scores represented a significant improvement from Fall 2006 scores (for the Group A teachers who were rated twice), except for the multi-age version. Percent scores refer to average total scores/total possible scores on each scale.

Fall 2006 Spring 2007 RM ANOVA results
Mean (SD) % Mean (SD) % F (df) p partial eta2
Younger (N = 14) 217.57 (47.30) 73.8% 251.07 (36.15) 85.1% 34.44 (1,13) .001 .73
Older (N = 13) 348.08 (71.71) 66.0% 411.00 (90.70) 78.0% 19.68 (1,12) .01 .62
Multi-Age (N = 4) 278.75 (105.2) 49.7% 342.25 (113.0) 61.0% 7.68 (1,3) ns .72

#### **IDEAL-N**

During Year 2, the Improving the Daily Environment for Access to Literacy and Numeracy (IDEAL-N), was completed for all participating ECEs. The IDEAL-N rates the learning environment through a 129 question checklist, The subscales for the IDEAL-N are as follows: 1) Infants; 2) Toddlers; 3) Preschool !V General; 4) Recommended Learning Centers: a) Reading/Literacy; b) Writing; c) Computer; d) Art; e) Music & Movement; f) Dramatic Play; g) Sand & Water; h) Block; i) Math; 5) Other Learning Centers. Our overall goal is 100% for each subscale. Below, that baseline is compared to the average percentage of recommended materials/resources and learning centers present in Spring 2007.

Spring 2006 Spring 2007

Infants 85% 98%

Toddlers 79% 82%

Preschool !V General 39% 59%

Recommended Learning Centers 72% 78%

Reading/Library 54% 67%

Writing 47% 66%

Computer 20% 31%

Art 71% 80%

Music & Movement 70% 73%

Dramatic Play 65% 77%

Sand & Water 61% 84%

Blocks 39% 53%

Math 42% 57%

Other Learning Centers 17% 19%



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

5 . **Project Objective** [1] Check if this is a status update for the previous budget period. Improve language/literacy, numeracy, & social/emotional school readiness of children in low-income areas through research-based training of early childhood educators & parents.

5.0a. Performance Measure	Measure Type			Quan	titative Data			
Improve school readiness of children in low income areas	PROJ	Target			Actual Performance Data			
through research-based training of early childhood		Raw Number	Ratio	%	Raw Number	Ratio	%	
educators (ECEs) and parents		1100	/		830	/		
. Performance Measure	Measure Type			Quan	titative Data			
	PROJ	Ta	ırget		Actual Perf	Performance Data		
						1	1	
		Raw Number	Ratio	%	Raw Number	Ratio	%	

Explanation of Progress (Include Qualitative Data and Data Collection Information)

5.0a Data were collected on a maximum of 569 children (the number varied by the type of assessment) in the Fall of 2006 and 713 children in the Spring of 2007. We had permis-sion to assess 824 children as of the end of Spring 2007, but some moved to different settings or were unavailable when their setting was scheduled for assessment.

Assessments used and results of each are reported below.

Peabody Picture Vocabulary Test (PPVT). Receptive vocabulary. A Standard Score of 100 is average, and our goal is for the children to be performing at age level (Standard Score of 85 or above). For all children assessed in the Fall of 2006 (N=558), the average standard score was 97.07 (SD = 16.12), but it significantly differed by group, F (1,556) = 6.90, p<.01, partial eta2 = .01. Group B children (N = 324, M = 98.59, SD = 15.87) outscored Group A children (N = 234, M = 94.97, SD = 16.27). By Spring 2007, the group difference had disappeared. Overall, the average score for the 711 children assessed in Spring 2007 was 96.47 (SD = 15.73).

The results for children who were repeatedly tested (N=338) are reported below.

Fall 06: M = 98.79 (16.28)

Spring 07: M = 100.22 (14.45)

F(1,337) = 4.25, p < .05, partial ??2 = .01, power = .54

Improvement: M = 1.43 (12.74)

36.4% of all children had a SS increase of 4+ points from Fall to Spring

Dividing those children into Group A and B, we found a significant time by group interaction, with Group A children improving significantly more over the course of the year than Group B children. These results are displayed below.

Group N Fall 2006 Spring 2007 % w/4 point SS increase

A 131 97.37 (16.99) 100.88 (14.79) 45.8% B 200 99.94 (15.89) 100.25 (14.04) 31.0%

Time by Year Effect F (1,329) = 4.99, p < .05, partial eta2 = .02, power = .61 Time Effect F (1,329) = 7.12, p < .01, partial eta2 = .02, power = .76

\*Examining only kindergarten-eligible children in Group A (those with 6 months of exposure to a teacher), 42% had increases of 4 or more standard score points.

According to GPRA guidelines, we separated children into two age groups, examining those who would be eligible for kindergarten the following Fall versus those who were younger. We then examined the percentage of children who obtained Standard Scores of 85 or above, reflecting age-appropriate performance.

Fall 06 Spring 07 # with Standard Score 85 or above 285 (82%) 302 (87%)

By age - Older 165 (86%) 173 (91%) Younger 120 (77%) 129 (83%) By group - A 106 (79%) 121 (90%) B 174 (85%) 177 (86%)

\*Examining Group A only kindergarten-eligible children, 87% had standard scores of 85 or above (60/69).

Expressive Vocabulary Test (EVT). A Standard Score of 100 is average, and our goal is for the children to be performing at an age-appropriate level (Standard Score of 85 or above).

For all children assessed in Fall 2006 (N = 412), the average standard score was 99.53 (SD = 12.51). As with PPVT scores, the Group B children (N = 225, M = 100.90, SD = 11.87) again significantly outscored the Group A children (N = 187, M = 97.89, SD = 13.07), F (1,410) = 6.01, p < .05, partial eta2 = .01. In Spring 2007, there was no significant group difference. The overall average score for the 696 children assessed in Spring was 100.43 (SD = 12.59).

For all children tested in both Fall and Spring (N = 244), the results are reported below:

Fall 06: M = 100.02 (12.96) Spring 07: M = 102.60 (13.09)

F(1,243) = 13.54, p < .001, partial ??2 = .05, power = .96

Improvement: M = 2.57 (10.93)

34.8% had a SS increase of 4+ points from T3 to T4

Dividing these children into Groups A and B, we found no significant differences between groups and no significant time by group interaction. Both groups improved significantly from Fall to Spring.

Group N Fall 2006 Spring 2007 % w/4 point SS increase

A 103 99.06 (14.17) 102.83 (13.77) 41.7% B 141 100.73 (11.99) 102.43 (12.61) 29.8%

Time Effect F (1,242) = 14.98, p < .001, partial eta2 = .06, power = .97

Similar to GPRA guidelines, we examined the number of children with Standard Scores of 85 or higher, reflecting age-appropriate performance. For both Group A and Group B, the percentage of children with age-appropriate scores was greater than 90. Overall, 91.3% of the children had Standard Scores of 85 and above in the Fall (377/413); 92.3% (643/697) scored 85 or above in the Spring of 2007.

Fall 06 Spring 07

By age - Older 165 (86%) 173 (91%) Younger 120 (77%) 129 (83%) By group - A 106 (79%) 121 (90%) B 174 (85%) 177 (86%)

Phonological Awareness Literacy Screening (PALS Pre-K)

PALS Upper Case Alphabet

The PALS Upper Case Alphabet test presents all 26 uppercase letters in random order; thus scores range from 0 to 26. In Fall 2006, 374 children were assessed, with average scores of 10.34 letters correct (SD = 9.7). In Spring 2007, 701 children were assessed, averaging 12.10 letters correct (SD = 10.2).

For GPRA purposes, all Fall 2007 Kindergarten-eligible children of Group A (fully trained) ECEs who had been exposed to a trained teacher for 6 months were examined. Their average score (number of letters recognized) in the Fall was 9.98 (SD = 9.54, n = 97). In the Spring, that improved to 16.13 (SD = 9.313, n = 128).

\*For the 66 kindergarten-eligible Group A children who were assessed in both Fall 2006 and Spring 2007, the mean score was somewhat higher (16.45).

For children tested in both Fall and Spring, there was significant improvement overall but no significant group differences or an interaction between time and group (see below).

ECE Training Group Mean Std. Deviation N Fall 06 A 10.33 9.900 106 B 11.86 9.974 163 Total 11.26 9.955 269 Spring 07 A 14.76 9.837 106 B 17.06 9.442 163 Total 16.16 9.647 269

Time x Group: F(1,267) = .921, ns, partial ??2 = .00, power = .16

Time: F(1,267) = 144.77, p < .001, partial ??2 = .35, power = 1.00 Group: F(1,267) = 2.76, ns, partial ??2 = .01, power = .38

In Fall 2006, 50.3% of the children eligible for kindergarten were performing below the expected range; by Spring 2007, this was reduced to 29.1%

PALS Name Writing.

The name writing scores varied from 2 to 7. In Fall 2006, 355 children were assessed and their average score was 4.68 (SD = 1.67). In Spring 2007, 682 children were assessed and their average was 4.85 (SD = 1.70).

Similar to the GPRA analysis of alphabet scores, we examined the name writing performance of Fall 2007 Kindergarteneligible children in Group A (exposed to a fully trained teacher). Their scores increased from 4.79 (SD = 1.59, n = 94) in the Fall to 5.85 (SD = 1.22, n = 127) in the Spring.

We further examined the scores of all children who were tested in both Fall and Spring, divided into Group A and B. Results are presented below. The analyses indicated that Group B began and ended the year scoring significantly higher than Group A., but both groups improved at equal rates.

ECE Training Group Mean Std. Deviation N Fall 06 A 4.49 1.627 102 B 4.97 1.644 153 Total 4.78 1.651 255 Spring 07 A 5.58 1.479 102 B 5.80 1.383 153 Total 5.71 1.423 255

Time x Group: F(1,253) = 1.96, ns, partial ??2 = .01, power = .29 Time: F(1,253) = 101.96, p < .001, partial ??2 = .30, power = 1.00 Group: F(1,253) = 4.05, p < .05, partial ??2 = .02, power = .52

In Fall 2006, 41.3% of children eligible for kindergarten in Fall 2007 were below the expected range. By Spring 2007 this had improved to 18.4%.

Individual Growth and Development Indicators (IGDI): Rhyming and Alliteration (measures of phonological awareness) Children are presented with cards showing 4 items and asked to select the one that rhymes or starts with the same sound as a

target item said aloud by the administrator. If they pass sample items, children are presented with more cards for two minutes, and their score is the number correct.

For the rhyming test, children of Group B teachers actually began the year (Fall 2006) scoring significantly higher than children of Group A teachers. (see below, F (1,156) = 5.46, p<.05, eta2 = .03). There were no significant differences between Group A and B children in Spring 2007.

IGDI Subtest Group Fall 2006 Spring 2007 Rhyming A 4.67 (3.48) n=63 8.29 (4.46) n=115 B 6.21 (4.41) n=95 8.75 (5.00) n=204

Alliteration A 3.77 (2.85) n = 61 5.73 (3.97) n = 98 B 3.95 (2.67) n = 76 5.54 (3.45) n = 173

Examining only those children who were assessed with the IGDI rhyming and alliteration tests in both Fall 06 and Spring 07, we found significant increases for children in both Groups A and B (see statistics below). Children in Group A made greater gains than those in Group B (a similar pattern to the above data), but the interaction between Time and Group was not significant.

Rhyming Test Items Correct !V

Time x Group: F(1,63) = 3.21, ns, partial ??2 = .05, power = .42 Time: F(1,63) = 43.78, p < .001, partial ??2 = .41, power = 1.00 Group: F(1,63) = 1.93, ns, partial ??2 = .03, power = .28

Alliteration Test Items Correct !V

Time x Year: F(1,50) = 3.86, ns, partial ??2 = .07, power = .49 Time: F(1,50) = 22.03, p < .001, partial ??2 = .31, power = .99 Year: F(1,50) = 2.51, ns, partial ??2 = .05, power = .34

IGDI data therefore indicate that children of trained ECEs are making gains in phonological awareness.

Get Ready to Read Literacy Screening. This screening test was developed for 4-year-old children (in the pre-kindergarten year). Twenty multiple choice items are presented, including items relating to phonological awareness, letter recognition, vocabulary, and print concepts.

In Fall 2006, 239 children were screened, with an average score of 13.06 (SD = 4.39). There was no significant difference

between groups. In Spring 2007, 272 children were screened, yielding an average score of 13.98 (SD = 4.48).

Sixty-five children were screened in both Fall 2006 and Spring 2007. Scores increased significantly over time, but Group B children scored significantly higher than Group A children, contrary to predictions. See below.

Group N Fall 2006 Spring 2007 A 30 11.77 (3.3) 13.57 (3.3) B 35 14.23 (4.0) 15.83 (3.8)

Time F (1,63) = 26.67, p <.001, partial eta2 = .30, power = .99 Group F (1,63) = 7.89, p <.01, partial eta2 = .11, power = .79

The Get Ready to Read screening provides 5 categories for children!|s scores. Results for all children assessed in Fall and/or Spring are shown below. Collapsing across the top 2 categories, there is marked improvement from Fall (55.7%) to Spring (67.9%) in the percentage of children possessing many or most of the skills important for early literacy pro-gress in kindergarten.

Category Fall 2006 Spring 2007

Step 1: Few of the skills 5.4% 5.2%

Step 2: Beginning to develop the skills 17.2% 10.3%

Step 3: Making progress 21.8% 16.6%

Step 4: Mastered many of the skills 27.2% 32.1%

Step 5: Strong skills 28.5% 35.8%

Preschoolers Understanding of Print (PUP), a project measure developed and pilot tested in Year 1. PUP subscales included: letter recognition (discriminating letters from other print and finding letters in signs and labels), environmental print (recognition and comprehension), and print awareness (book concepts).

For all children tested in Fall 2006 (N = 278), the average percent correct was 51.73 (SD = 19.02). In Spring 2007 (N = 640), the average was 55.94 (SD = 20.80).

For children who were repeatedly tested, we conducted a Repeated Measures ANOVA comparing Groups A and B. There was no significant difference between the groups and no time by group interaction. Both groups improved significantly over time, F(1,184) = 84.69, p < .001, partial eta2 = .32, power = 1.00. Fall 2006 scores averaged 53.18% correct (18.88) and Spring 2007 scores averaged 62.87% correct (19.24).

Numeracy Assessment of Preschoolers (NAP), a Project REEL measure of early mathematical concepts developed and pilot tested in Year 1. The NAP consists of 11 subscales including number recognition, counting, shape, color, mathematical vocabulary, grouping, patterns, adding, subtracting, spatial reasoning, and sequencing). We have conducted analyses for psychometric properties of this instrument and found it to be internally consistent and reliable (test-retest reliability r=.93, internal consistency alpha = .94 for Form A, .93 for Form B, Guttman split-half coefficients = .87 for both forms). We are evaluating its validity in Year 3 by comparing scores on the NAP with those on subtests of the Woodcock Johnson Achievement - III) and the Test of Early Mathematics Ability (TEMA !V 3).

For all children tested on at least one occasion, the scores were:

Fall 06: N = 297 M = 58.04 (21.00) Spring 07: N = 647 M = 65.14 (22.78)

Dividing children tested in both Fall 2006 and Spring 2007 into Groups A and B, we found significant improvement but no group differences.

Group N Fall 2006 Spring 2007 A 60 53.40 (20.08) 69.68 (19.50) B 114 60.58 (21.44) 74.00 (19.85)

Time effect F (1,172) = 268.12, p < .001, partial eta2 = .61, power = 1.00

Preschool and Kindergarten Behavior Scales (PKBS-2). This measure is a teacher rating of social skills and problem behaviors. For both subscales, average standard scores are 100. Our goal is to reduce problem behaviors and improve social skills to average or better than average levels. ECEs completed PKBS ratings on 251 3 to 5 year-olds in Fall 2006 and 509 in Spring 2007.

Overall standard scores on the PKBS social skills scale in Fall 2006 and Spring 2007 were 101.91 (n= 247) and 105.89 (n= 488), respectively. Standard scores on the problem behavior scale were 98.29 (n=247) and 95.09 (n=485) in Fall and Spring, respectively. These scores are all in the average range, but reflect modest improvements in social skills but no change in problem behaviors (note - lower percentiles on problem behaviors are better).

Scores were then examined by ECE training group for those children who had been rated on both occasions. Mean standard scores and corresponding percentiles are reported below.

PKBS Subscale Group N Fall 2006 Spring 2007

Mean SD % Mean SD % Social Skills A 32 105.56 (11.40) 59 109.31 (10.70) 69 B 100 102.32 (16.22) 48 106.41 (13.11) 62 Problem Behaviors A 31 96.58 (12.16) 44 98.26 (12.38) 48 B 98 97.35 (17.21) 46 98.66 (17.08) 50

Repeated measures ANOVAs revealed no significant effects of group or time by group interactions for either social skills or problem behaviors. However, there was a significant overall improvement (effect of time) in social skills, F(1,130) = 8.46, p < .01, partial eta2 = .06.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

5 . **Project Objective** Il Check if this is a status update for the previous budget period.

Train 220 ECEs in specific strategies for developing language/literacy and social/emotional skills needed for school readiness and in assessment and curriculum planning to develop language/literacy and social/emotional skills.

5.1a. Performance Measure	Measure Type			Quai	ntitative Data		
Train 220 early childhood educators (ECEs)	PROJ	Target			Actual Performance Data		
educators (ECEs)		Raw Number	Ratio	%	Raw Number	Ratio	%
		220	/		165	/	
5.1b. Performance Measure	Measure			Ouai	ntitative Data		
5.1b. Performance Measure	Measure Type			Quar	ntitative Data		
Specific strategies to		Ta	nrget	Quai		formance Data	
	Type	Ta Raw Number	nrget Ratio	Quai		formance Data Ratio	%

Explanation of Progress (Include Qualitative Data and Data Collection Information)

5.1a. Before Group A began training, 366 ECEs from 90 settings across Tennessee were recruited to participate in Project REEL (with 90 directors, 31 of whom were acting as director/teachers). At the end of Year 1 (August, 2006), 208 teachers were participating in 72 settings (with 65 directors and 23 of those serving as director/teachers). At the end of Year 2

(August 2007), 165 ECEs in 69 settings completed training (with 68 directors, 25 of whom were serving as director/teachers). To accommodate for attrition, additional ECEs (beyond our ultimate target of 220, or 20 per region) were recruited initially, and new ECEs were added into Group B as necessary once training for Group A teachers had begun. We also met or talked with participants who indicated a desire or need to withdraw and attempted to resolve any issues under our control. From our original recruitment sample to the end of Year 1, we retained 57% (208/366) of our participants. Many of those who dropped during that time period did so due to unwillingness to make a 3-year commitment to an intensive training program or to wait (as in the delayed treatment group) for training and materials. Once training began (workshops and on-site coaching), we lost far fewer participants. From the end of Year 1 to the end of Year 2, we retained 80% (165/208) of our participants.

5.1b. By the end of Year 2 165 early childhood educators (ECEs), 68 directors with 25 of the directors serving in the role of director/teacher had received training in strategies in the following topics: 1session on Social and Emotional Development, 2 sessions on Oral Language Development, 2 sessions on Phonological/Phonemic Awareness, 2 sessions on Concepts About Books and Print, 1 session on Alphabetic Principle, 1 session on Comprehension and Motivation, 1 session on Emergent Writing, 2 sessions on Early Numeracy Development, 1 session on Embedding Literacy into the Learning Centers, and 1 session on Pulling Together All the Pieces. Group A and B also received 40? 44 hours of intensive coaching, which consisted of Project REEL Specialists spending several hours a week with participants in their classroom modeling, coaching, and supporting implementation of strategies taught in formal sessions. Group A and B also received 30 -34 hours of supportive coaching, which consisted of Project REEL Specialists providing additional model-ing, coaching, and support on specific strategies, and Specialists spent a portion of that time reinforcing the participants? appropriate use of new strategies. The remaining 18 hours will be completed during year 3.

## **ECTS**

During Year 2 the ECEs completed the Early Childhood Teacher Survey (ECTS), which is a self-rating scale with 87 questions divided into eight different subscales that measures the ECEs? classroom practices. The ECEs rate themselves on how often they use recommended strategies using a scale of 1 for ?never? and up to 5 for ?always?. If an item does not apply, ECEs have the option of marking the question ?not applicable?. The 8 subscales for the ECTS are: 1) Organization and management of the learning environment; 2) Supporting children?s oral language development; 3) Supporting children?s understanding of the sounds of words in oral language; 4) Supporting children?s awareness of the uses of print and how books work; 5) Supporting children?s understanding of the alphabet; 6) Supporting children?s interest and motivation to learn about print; 7) Supporting children?s development of mathematical skills; and 8) Supporting children?s development of writing skills. Our overall goal was a 4.5 or above (90%) for each subscale. During Spring 2007 the ratings averaged 4.08 meaning the ECEs reported using the recommended strategies at a rate of about 81.7% For print awareness and book

knowledge, Group A ECEs rated themselves higher than Group B ECEs did, F(1,117) = 5.24, p<.05, partial eta2 = .04, but there were no significant differences on the other dimensions. Overall ratings (collapsed across group) for each dimension are shown below as percentage scores (average rating/5).

- 1. Organization & management of the learning environment 90%
- 2. Supporting oral language development 84%
- 3. Supporting understanding of sounds of language 73%
- 4. Supporting understanding of print & books 72%
- 5. Supporting understanding of alphabet 80%
- 6. Supporting interest and motivation about print 82%
- 7. Supporting mathematical skills 87%
- 8. Supporting writing skills 85%

We also examined the changes in Group A and Group B ECEs? ratings from Spring of 2006 to Spring of 2007 (only for those ECEs who rated themselves at both times).

For 7 of the 8 ECTS dimensions, ratings improved significantly for both groups. Dimension 1 (organization and management of the learning environment) did not show significant change, partly due to a ceiling effect (ratings averaged 87% in Spring 2006). For several dimensions, Group B ECEs rated themselves significantly higher than Group A teachers did, contrary to expectations that fully trained (Group A) ECEs would outperform Group B (partly trained) ECEs. Group effect sizes were generally small. All significant effects are shown in the table below.

Dimension Group N Spring 2006 Spring 2007 RM ANOVA statistics M (SD) M (SD) effect F df p eta2 Org & management A 61 85.07 (11.3) 87.71 (10.6) Group 3.38 (1,121) .01 .08 B 62 89.44 (9.0) 91.21 (6.5)

Oral language A 60 76.65 (12.2) 82.18 (11.3) Group 7.56 (1,120) .01 .06 B 62 80.91 (11.0) 86.17 (7.9) Time 19.44 (1,120) .001 .14

Sounds of language A 59 60.85 (19.2) 70.32 (16.9) Group 6.44 (1,119) .05 .05 B 62 67.81 (18.4) 75.54 (14.2) Time 17.98 (1,119) .001 .13

Print & Books A 58 54.97 (19.5) 68.97 (18.9) Group 6.57 (1,15) .05 .05 B 59 60.12 (18.9) 75.38 (14.6) Time 35.35 (1,115) .001 .24

Alphabet A 43 69.38 (19.5) 77.82 (20.5) Time 13.83 (1,88) .001 .14 B 47 72.73 (17.4) 82.87 (12.6)

Print Motivation A 56 70.06 (15.0) 80.79 (16.3) Time 27.07 (1,114) .001 .19 B 60 73.85 (15.0) 83.93 (11.9)

Math A 52 78.06 (15.3) 85.79 (11.0) Time 17.21 (1,106) .001 .14 B 56 82.43 (13.0) 88.11 (8.53)

Writing A 57 75.62 (18.3) 83.75 (16.8) Time 14.93 (1,116) .001 .11 B 61 78.82 (15.7) 85.84 (10.2)

**Strategy Checklists** 

During Year 2, the ECEs were objectively rated by the Specialists using the Strategy Checklist that examines ECEs? use of every recommended research-based strategy, including items related to all 9 content areas (social-emotional, oral language, phonological awareness, print awareness, book concepts, alphabet, comprehension, writing, & numeracy). Strategy Checklists are based on cumulative hours of observation rather than a single observation period. There are three versions of the Strategy Checklist: Older (for preschool & pre-K children), Younger (for Infants and Toddlers), and Multi-age (for settings, typically family settings, that serve children from birth to 5). For most strategies, the specialist marked 0 for absent, 1 for using the strategy but needing improvement, or 2 for using the strategy well; a few items were scored as 0 (absent) or 1 (present). Scores reported be-low are average total scores, summing all scores of 1 and 2 across the entire strategy checklist. Overall, in Spring 2007, ECEs working with older children averaged 378.5 out of a possible 527 points (71.8%). Those working with younger children averaged 245.54 out of a possible 295, or 83.2%. Multi-age settings averaged 390.65 out of 561 points, or 69.6 %. There were no statistically significant differences by ECE group in Spring 2007. As shown below, Spring scores represented a significant improvement from Fall 2006 scores (for the Group A teachers who were rated twice), except for the multi-age version. Percent scores refer to average total scores/total possible scores on each scale.

 $\label{eq:fall 2006 Spring 2007 RM ANOVA results} \\ Mean (SD) \% \ Mean (SD) \% \ F (df) \ p \ partial \ eta2 \\ Younger (N = 14) \ 217.57 \ (47.30) \ 73.8\% \ 251.07 \ (36.15) \ 85.1\% \ 34.44 \ (1,13) \ .001 \ .73 \\ Older (N = 13) \ 348.08 \ (71.71) \ 66.0\% \ 411.00 \ (90.70) \ 78.0\% \ 19.68 \ (1,12) \ .01 \ .62 \\ Multi-Age (N = 4) \ 278.75 \ (105.2) \ 49.7\% \ 342.25 \ (113.0) \ 61.0\% \ 7.68 \ (1,3) \ ns \ .72 \\ \\$ 

ECEs were provided with training in assessment, including administration of the Creative Curriculum Developmental Continuum, the Get Ready to Read Literacy Screening (GRTR), the Ages and Stages Questionnaire (ASQ), and the Preschool/Kindergarten Behavior Scales (PKBS). Even with training and support, ECEs had difficulty completing the

Developmental Continuum, and only 102 were completed during Year 2 (the CCDC applies from birth to age 5). ECEs worked with parents to complete the ASQ which also applies from birth to age 5. ECEs were more successful in this endeavor, with 359 ASQs completed during year 2. ECEs used the ASQ results in planning and for parent-teacher conferences. The GRTR Literacy Screening applies to 4 year-olds only. ECEs were very successful in administering these, completing 240 in Fall 2006 and 272 in Spring of 2007. ECEs also completed a large number of PKBS ratings on 3 to 5 year-olds; 251 in Fall 2006 and 509 in Spring 2007.

The Creative Curriculum Implementation Checklists have subscales related to assessment and curriculum planning. From the Spring of 2006 to Spring of 2007, scores on this subscale improved significantly for the preschool and infant/toddler checklists (only scores for ECEs observed on both occasions are presented in the table). Fully trained ECEs (Group A = 70.1%) performed significantly better than partly trained ECEs (Group B = 43.3%) on the planning/evaluation/assessment subscale items in the Spring of 2007, F (1,32) = 5.20, p<.05, partial eta2 = .14.

Checklist N Spring 2006 Spring 2007 Preschool 34 29.68 (24.65) 56.68 (36.30) Infant/Toddler 27 49.38 (29.77) 76.54 (32.44) Family 12 52.78 (24.45) 63.89 (34.69)



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

5 . **Project Objective** 11 Check if this is a status update for the previous budget period. Train 220 ECEs to educate families to foster school readiness / success among young children.

5.2a. Performance Measure	Measure Type	Quantitative Data						
Specific strategies to develop	PROJ	Ta	rget		Actual Performance Data			
school readiness Train 220 early childhood educators (ECEs)		Raw Number	Ratio	%	Raw Number	Ratio	%	
, ,		220	/		165	/		

5.2b. Performance Measure	Measure Type	Quantitative Data						
J	PROJ	Target			Actual Performance Data			
educators (ECEs) how to educate families in supporting children to succeed in school		Raw Number	Ratio	%	Raw Number	Ratio	%	
			/			/		

Explanation of Progress (Include Qualitative Data and Data Collection Information)

5.2a. Before Group A began training, 366 ECEs from 90 settings across Tennessee were recruited to participate in Project REEL (with 90 directors, 31 of whom were acting as director/teachers). At the end of Year 1 (August, 2006), 208 teachers were participating in 72 settings (with 65 directors and 23 of those serving as director/teachers). At the end of Year 2 (August 2007), 165 ECEs in 69 settings completed training (with 68 directors, 25 of whom were serving as

director/teachers). To accommodate for attrition, additional ECEs (beyond our ultimate target of 220, or 20 per region) were recruited initially, and new ECEs were added into Group B as necessary once training for Group A teachers had begun. We also met or talked with participants who indicated a desire or need to withdraw and attempted to resolve any issues under our control. From our original recruitment sample to the end of Year 1, we retained 57% (208/366) of our participants. Many of those who dropped during that time period did so due to unwillingness to make a 3-year commitment to an intensive training program or to wait (as in the delayed treatment group) for training and materials. Once training began (workshops and on-site coaching), we lost far fewer participants. From the end of Year 1 to the end of Year 2, we retained 80% (165/208) of our participants.

5.2b. Each training session includes strategies for working with parents to involve their child?s language, literacy, numeracy, and social skills development. By the end of Year 2 165 early childhood educators (ECEs), 68 directors with 25 of the directors serving in the role of director/teacher had received training in strategies in the following topics: 1session on Social and Emotional Development, 2 sessions on Oral Language Development, 2 sessions on Phonological/Phonemic Awareness, 2 sessions on Concepts About Books and Print, 1 session on Alphabetic Principle, 1 session on Comprehension and Motivation, 1 session on Emergent Writing, 2 sessions on Early Numeracy Development, 1 session on Embedding Literacy into the Learning Centers, and 1 session on Pulling Together All the Pieces. Group A and B also received 40? 44 hours of intensive coaching, which consisted of Project REEL Specialists spending several hours a week with participants in their classroom modeling, coaching, and supporting implementation of strategies taught in formal sessions. Group A and B also received 30 -34 hours of supportive coaching, which consisted of Project REEL Specialists providing additional modeling, coaching, and support on specific strategies, and Specialists spent a portion of that time reinforcing the participants? appropriate use of new strategies. The remaining 18 hours will be completed during year 3.

A topical seminar specifically targeting making the home-school connection has been developed. ECEs are encouraged to use daily literacy and numeracy activities to educate parents on appropriate strategies that can be replicated at home. An oversized bookmark suggesting family literacy activities has been developed and will be disseminated to families in Project REEL settings.

ECEs were trained to administer the Get Ready to Read Literacy Screening to 4-year-olds, to share the results with parents, and to direct parents to the Get Ready to Read website that contains a wealth of resources and activities for parents to do with their children to strengthen early literacy skills. Get Read to Read Screenings were conducted for 240 chil-dren in the Fall of 2006 and 272 children in the Spring of 2007.

ECEs also informed and involved parents by asking them to complete the Ages and Stages Questionnaires. These help parents to understand if their children are developing appropriately in 5 different areas. Parents completed 359 ASQs during Year 2 of the project.

The evaluation team sent letters to parents following each wave of assessment (Fall and Spring). The letters reported their child?s performance on the PPVT, the EVT, and the PALS- Pre K Alphabet and Name writing subtests (for 4 year-olds only). These assessments have normative data by which the parents can interpret their child?s standing relative to their peers and/or to age-appropriate expectations. ECEs were provided with information on each child in their setting as well, and were trained in how to direct parents to ob-tain information on further assessment or activities to support development.

Parent involvement and communication is measured by Family Involvement subscale of the Creative Curriculum Implementation Checklist. We analyzed the results of this checklist by ECE group (A versus B) as well as over time (Spring 2006 versus Spring 2007). Overall, family involvement scores are very high, averaging 95.65% for the Family Child Care Checklist, 93.37% for the Infant/Toddler Implementation Checklist, and 93.45% for the Preschool Implementation Checklist in the Spring of 2007. These scores did not significantly differ by ECE group. Changes in scores over time are shown below.

Implementation Checklist Spring 2006 Spring 2007 Time effect statistics

Family (n = 12) 93.06 (15.0) 97.22 (6.5) F (1,10) = .32, NS Infant/Toddler (n=27) 89.42 (16.6) 95.24 (10.5) F (1,25) = 2.42, NS Preschool (n = 34) 85.29 (19.3) 92.35 (12.1) F (1,32) = 6.55, p<.05, partial eta2 = .17



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

5 . **Project Objective** [1] Check if this is a status update for the previous budget period. Assess a subsample of 1100 children served by participating ECEs.

5.3a. Performance Measure	Measure Type	Quantitative Data						
Assess a subsample of 1100 children whose teachers	PROJ	Target			Actual Performance Data			
participated in the training.		Raw Number	Ratio	%	Raw Number	Ratio	%	
		1100	/		830	/		

Explanation of Progress (Include Qualitative Data and Data Collection Information)

5.3a. Data were collected on a maximum of 569 children (the number varied by the type of assessment) in the Fall of 2006 and 713 children in the Spring of 2007. We had permission to assess 824 children as of the end of Spring 2007, but some moved to different settings or were unavailable when their setting was scheduled for assessment.

ECEs, directors, and specialists assisted the evaluation team in obtaining parental permission, and very few parents declined (n=) but many did not return signed consent forms after repeated requests. Many children moved to non-participating settings during the course of the year. Additionally, we had fewer ECEs in settings with children in the testable age range (3 to 5 years) and more younger children (infants and toddlers) than we had initially anticipated. Our goal of 1100 was based on testing 100 children per region X 11 regions; some regions did not have 100 3-to-5-year olds enrolled in their participating settings.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

5 . **Project Objective** [1] Check if this is a status update for the previous budget period. Produce gains in children's language/literacy, numeracy, and social-emotional test/rating scores relative to peers whose teachers have not received training.

5.4a. Performance Measure	Measure Type	Quantitative Data					
Produce gains in children?s language/literacy/numeracy/social	PROJ	Ta	rget		Actual Performance Data		
emotional scores relative to peers with non-participating teachers		Raw Number	Ratio	%	Raw Number	Ratio	%
			/			/	

Explanation of Progress (Include Qualitative Data and Data Collection Information) 5.4a.

Data were collected on a maximum of 569 children (the number varied by the type of assessment) in the Fall of 2006 and 713 children in the Spring of 2007. We had permission to assess 824 children as of the end of Spring 2007, but some moved to different settings or were unavailable when their setting was scheduled for assessment.

Assessments used and results of each are reported below.

Peabody Picture Vocabulary Test (PPVT). Receptive vocabulary. A Standard Score of 100 is average, and our goal is for the children to be performing at age level (Standard Score of 85 or above). Results are reported below.

Peabody Picture Vocabulary Test (PPVT). Receptive vocabulary. A Standard Score of 100 is average, and our goal is for the

children to be performing at age level (Standard Score of 85 or above). For all children assessed in the Fall of 2006 (N=558), the average standard score was 97.07 (SD = 16.12), but it significantly differed by group, F (1,556) = 6.90, p<.01, partial eta2 = .01. Group B children (N = 324, M = 98.59, SD = 15.87) outscored Group A children (N = 234, M = 94.97, SD = 16.27). By Spring 2007, the group difference had disappeared. Overall, the average score for the 711 children assessed in Spring 2007 was 96.47 (SD = 15.73).

The results for children who were repeatedly tested (N=338) are reported below.

Fall 06: M = 98.79 (16.28) Spring 07: M = 100.22 (14.45) F(1,337) = 4.25, p < .05, partial ??2 = .01, power = .54 Improvement: M = 1.43 (12.74)

36.4% of all children had a SS increase of 4+ points from Fall to Spring

Dividing those children into Group A and B, we found a significant time by group interaction, with Group A children improving significantly more over the course of the year than Group B children. These results are displayed below.

Group N Fall 2006 Spring 2007 % w/4 point SS increase

A 131 97.37 (16.99) 100.88 (14.79) 45.8% B 200 99.94 (15.89) 100.25 (14.04) 31.0%

Time by Year Effect F (1,329) = 4.99, p < .05, partial eta2 = .02, power = .61 Time Effect F (1,329) = 7.12, p < .01, partial eta2 = .02, power = .76

\*Examining only kindergarten-eligible children in Group A (those with 6 months of exposure to a teacher), 42% had increases of 4 or more standard score points.

According to GPRA guidelines, we separated children into two age groups, examining those who would be eligible for kindergarten the following Fall versus those who were younger. We then examined the percentage of children who obtained Standard Scores of 85 or above, reflecting age-appropriate performance.

Fall 06 Spring 07
# with Standard Score 85 or above 285 (82%) 302 (87%)
By age - Older 165 (86%) 173 (91%)
Younger 120 (77%) 129 (83%)
By group - A 106 (79%) 121 (90%)
B 174 (85%) 177 (86%)

\*Examining Group A only kindergarten-eligible children, 87% had standard scores of 85 or above (60/69).

Expressive Vocabulary Test (EVT). A Standard Score of 100 is average, and our goal is for the children to be performing at an age-appropriate level (Standard Score of 85 or above).

For all children assessed in Fall 2006 (N = 412), the average standard score was 99.53 (SD = 12.51). As with PPVT scores, the Group B children (N = 225, M = 100.90, SD = 11.87) again significantly outscored the Group A children (N = 187, M = 97.89, SD = 13.07), F (1,410) = 6.01, p < .05, partial eta2 = .01. In Spring 2007, there was no significant group difference. The overall average score for the 696 children assessed in Spring was 100.43 (SD = 12.59).

For all children tested in both Fall and Spring (N = 244), the results are reported below:

Fall 06: M = 100.02 (12.96)

Spring 07: M = 102.60 (13.09)

F(1,243) = 13.54, p < .001, partial ??2 = .05, power = .96

Improvement: M = 2.57 (10.93)

34.8% had a SS increase of 4+ points from T3 to T4

Dividing these children into Groups A and B, we found no significant differences between groups and no significant time by group interaction. Both groups improved significantly from Fall to Spring.

Group N Fall 2006 Spring 2007 % w/4 point SS increase

A 103 99.06 (14.17) 102.83 (13.77) 41.7% B 141 100.73 (11.99) 102.43 (12.61) 29.8%

Time Effect F (1,242) = 14.98, p < .001, partial eta2 = .06, power = .97

Similar to GPRA guidelines, we examined the number of children with Standard Scores of 85 or higher, reflecting age-appropriate performance. For both Group A and Group B, the percentage of children with age-appropriate scores was greater than 90. Overall, 91.3% of the children had Standard Scores of 85 and above in the Fall (377/413); 92.3% (643/697) scored 85 or above in the Spring of 2007.

Fall 06 Spring 07

By age - Older 165 (86%) 173 (91%)

Younger 120 (77%) 129 (83%) By group - A 106 (79%) 121 (90%) B 174 (85%) 177 (86%)

Phonological Awareness Literacy Screening (PALS Pre-K)

PALS Upper Case Alphabet

The PALS Upper Case Alphabet test presents all 26 uppercase letters in random order; thus scores range from 0 to 26. In Fall 2006, 374 children were assessed, with average scores of 10.34 letters correct (SD = 9.7). In Spring 2007, 701 children were assessed, averaging 12.10 letters correct (SD = 10.2).

For GPRA purposes, all Fall 2007 Kindergarten-eligible children of Group A (fully trained) ECEs who had been exposed to a trained teacher for 6 months were examined. Their average score (number of letters recognized) in the Fall was 9.98 (SD = 9.54, n = 97). In the Spring, that improved to 16.13 (SD = 9.313, n = 128).

\*For the 66 kindergarten-eligible Group A children who were assessed in both Fall 2006 and Spring 2007, the mean score was somewhat higher (16.45).

For children tested in both Fall and Spring, there was significant improvement overall but no significant group differences or an interaction between time and group (see below).

ECE Training Group Mean Std. Deviation N Fall 06 A 10.33 9.900 106 B 11.86 9.974 163 Total 11.26 9.955 269 Spring 07 A 14.76 9.837 106 B 17.06 9.442 163 Total 16.16 9.647 269

Time x Group: F(1,267) = .921, ns, partial ??2 = .00, power = .16 Time: F(1,267) = 144.77, p < .001, partial ??2 = .35, power = 1.00

Group: F(1,267) = 2.76, ns, partial ??2 = .01, power = .38

In Fall 2006, 50.3% of the children eligible for kindergarten were performing below the expected range; by Spring 2007, this was reduced to 29.1%

PALS Name Writing.

The name writing scores varied from 2 to 7. In Fall 2006, 355 children were assessed and their average score was 4.68 (SD = 1.67). In Spring 2007, 682 children were assessed and their average was 4.85 (SD = 1.70).

Similar to the GPRA analysis of alphabet scores, we examined the name writing performance of Fall 2007 Kindergarteneligible children in Group A (exposed to a fully trained teacher). Their scores increased from 4.79 (SD = 1.59, n = 94) in the Fall to 5.85 (SD = 1.22, n = 127) in the Spring.

We further examined the scores of all children who were tested in both Fall and Spring, divided into Group A and B. Results are presented below. The analyses indicated that Group B began and ended the year scoring significantly higher than Group A., but both groups improved at equal rates.

ECE Training Group Mean Std. Deviation N Fall 06 A 4.49 1.627 102 B 4.97 1.644 153 Total 4.78 1.651 255 Spring 07 A 5.58 1.479 102 B 5.80 1.383 153 Total 5.71 1.423 255

Time x Group: F(1,253) = 1.96, ns, partial ??2 = .01, power = .29 Time: F(1,253) = 101.96, p < .001, partial ??2 = .30, power = 1.00 Group: F(1,253) = 4.05, p < .05, partial ??2 = .02, power = .52

In Fall 2006, 41.3% of children eligible for kindergarten in Fall 2007 were below the expected range. By Spring 2007 this had improved to 18.4%.

Individual Growth and Development Indicators (IGDI): Rhyming and Alliteration (measures of phonological awareness) Children are presented with cards showing 4 items and asked to select the one that rhymes or starts with the same sound as a target item said aloud by the administrator. If they pass sample items, children are presented with more cards for two minutes,

and their score is the number correct.

For the rhyming test, children of Group B teachers actually began the year (Fall 2006) scoring significantly higher than children of Group A teachers. (see below, F (1,156) = 5.46, p<.05, eta2 = .03). There were no significant differences between Group A and B children in Spring 2007.

IGDI Subtest Group Fall 2006 Spring 2007 Rhyming A 4.67 (3.48) n=63 8.29 (4.46) n=115 B 6.21 (4.41) n=95 8.75 (5.00) n=204

Alliteration A 3.77 (2.85) n = 61 5.73 (3.97) n = 98 B 3.95 (2.67) n = 76 5.54 (3.45) n = 173

Examining only those children who were assessed with the IGDI rhyming and alliteration tests in both Fall 06 and Spring 07, we found significant increases for children in both Groups A and B (see statistics below). Children in Group A made greater gains than those in Group B (a similar pattern to the above data), but the interaction between Time and Group was not significant.

Rhyming Test Items Correct !V

Time x Group: F(1,63) = 3.21, ns, partial ??2 = .05, power = .42 Time: F(1,63) = 43.78, p < .001, partial ??2 = .41, power = 1.00 Group: F(1,63) = 1.93, ns, partial ??2 = .03, power = .28

Alliteration Test Items Correct !V

Time x Year: F(1,50) = 3.86, ns, partial ??2 = .07, power = .49 Time: F(1,50) = 22.03, p < .001, partial ??2 = .31, power = .99 Year: F(1,50) = 2.51, ns, partial ??2 = .05, power = .34

IGDI data therefore indicate that children of trained ECEs are making gains in phonological awareness.

Get Ready to Read Literacy Screening. This screening test was developed for 4-year-old children (in the pre-kindergarten year). Twenty multiple choice items are presented, including items relating to phonological awareness, letter recognition, vocabulary, and print concepts.

In Fall 2006, 239 children were screened, with an average score of 13.06 (SD = 4.39). There was no significant difference between groups. In Spring 2007, 272 children were screened, yielding an average score of 13.98 (SD = 4.48).

Sixty-five children were screened in both Fall 2006 and Spring 2007. Scores increased significantly over time, but Group B children scored significantly higher than Group A children, contrary to predictions. See below.

Group N Fall 2006 Spring 2007 A 30 11.77 (3.3) 13.57 (3.3) B 35 14.23 (4.0) 15.83 (3.8)

Time F (1,63) = 26.67, p <.001, partial eta2 = .30, power = .99 Group F (1,63) = 7.89, p <.01, partial eta2 = .11, power = .79

The Get Ready to Read screening provides 5 categories for children!|s scores. Results for all children assessed in Fall and/or Spring are shown below. Collapsing across the top 2 categories, there is marked improvement from Fall (55.7%) to Spring (67.9%) in the percentage of children possessing many or most of the skills important for early literacy pro-gress in kindergarten.

Category Fall 2006 Spring 2007

Step 1: Few of the skills 5.4% 5.2%

Step 2: Beginning to develop the skills 17.2% 10.3%

Step 3: Making progress 21.8% 16.6%

Step 4: Mastered many of the skills 27.2% 32.1%

Step 5: Strong skills 28.5% 35.8%

Preschoolers Understanding of Print (PUP), a project measure developed and pilot tested in Year 1. PUP subscales included: letter recognition (discriminating letters from other print and finding letters in signs and labels), environmental print (recognition and comprehension), and print awareness (book concepts).

For all children tested in Fall 2006 (N = 278), the average percent correct was 51.73 (SD = 19.02). In Spring 2007 (N = 640), the average was 55.94 (SD = 20.80).

For children who were repeatedly tested, we conducted a Repeated Measures ANOVA comparing Groups A and B. There was no significant difference between the groups and no time by group interaction. Both groups improved significantly over time, F (1,184) = 84.69, p < .001, partial eta2 = .32, power = 1.00. Fall 2006 scores averaged 53.18% cor-rect (18.88) and Spring 2007 scores averaged 62.87% correct (19.24).

Numeracy Assessment of Preschoolers (NAP), a Project REEL measure of early mathematical concepts developed and pilot tested in Year 1. The NAP consists of 11 subscales including number recognition, counting, shape, color, mathematical vocabulary, grouping, patterns, adding, subtracting, spatial reasoning, and sequencing). We have conducted analyses for psychometric properties of this instrument and found it to be internally consistent and reliable (test-retest reliability r=.93, internal consistency alpha = .94 for Form A, .93 for Form B, Guttman split-half coefficients = .87 for both forms). We are evaluating its validity in Year 3 by comparing scores on the NAP with those on subtests of the Woodcock Johnson III and the Test of Early Mathematics Ability (TEMA !V 3).

For all children tested on at least one occasion, the scores were:

Fall 06: N = 297 M = 58.04 (21.00) Spring 07: N = 647 M = 65.14 (22.78)

Dividing children tested in both Fall 2006 and Spring 2007 into Groups A and B, we found significant improvement but no group differences.

Group N Fall 2006 Spring 2007 A 60 53.40 (20.08) 69.68 (19.50) B 114 60.58 (21.44) 74.00 (19.85)

Time effect F (1,172) = 268.12, p < .001, partial eta2 = .61, power = 1.00

Preschool and Kindergarten Behavior Scales (PKBS-2). This measure is a teacher rating of social skills and problem behaviors. For both subscales, average standard scores are 100. Our goal is to reduce problem behaviors and improve social skills to average or better than average levels. ECEs completed PKBS ratings on 251 3 to 5 year-olds in Fall 2006 and 509 in Spring 2007.

Overall standard scores on the PKBS social skills scale in Fall 2006 and Spring 2007 were 101.91 (n= 247) and 105.89 (n= 488), respectively. Standard scores on the problem behavior scale were 98.29 (n=247) and 95.09 (n=485) in Fall and Spring, respectively. These scores are all in the average range, but reflect modest improvements in social skills but no change in problem behaviors (note - lower percentiles on problem behaviors are better).

Scores were then examined by ECE training group for those children who had been rated on both occasions. Mean standard scores and corresponding percentiles are reported be-low.

PKBS Subscale Group N Fall 2006 Spring 2007 Mean SD % Mean SD %

Social Skills A 32 105.56 (11.40) 59 109.31 (10.70) 69 B 100 102.32 (16.22) 48 106.41 (13.11) 62 Problem Behaviors A 31 96.58 (12.16) 44 98.26 (12.38) 48 B 98 97.35 (17.21) 46 98.66 (17.08) 50

Repeated measures ANOVAs revealed no significant effects of group or time by group interactions for either social skills or problem behaviors. However, there was a significant overall improvement (effect of time) in social skills, F(1,130) = 8.46, p < .01, partial eta2 = .06.



PR/Award #: **S349A050047** 

**SECTION A - Project Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

5 . **Project Objective** [1] Check if this is a status update for the previous budget period. Provide quarterly early literacy training sessions for parents within the target communities.

5.5a. Performance Measure	Measure Type	Quantitative Data					
Quarterly training sessions for parents within targeted	PROJ	Target			Actual Performance Data		
low-income com-munities		Raw Number	Ratio	%	Raw Number	Ratio	%
			/			/	

Explanation of Progress (Include Qualitative Data and Data Collection Information)

5.5a Each module contained strategies for working with parents. A topical seminar specifically targeting making the homeschool connection has been developed. ECEs are encouraged to use daily literacy and numeracy activities to educate parents on appropriate strategies that can be replicated at home. An oversized bookmark suggesting family literacy activities has been developed and will be disseminated to families in Project REEL settings.



PR/Award #: **S349A050047** 

**SECTION B - Budget Information** (See Instructions. Use as many pages as necessary.)

Title: Budget Information and 269 Form

File: P:\Annual Report\S349A050047 Budget and 269 Form.pdf

**SECTION C - Additional Information** (See Instructions. Use as many pages as necessary.)

Title: Additional Information and GPRA Report

File: P:\Annual Report\Additional Information and GPRA.doc



OMB No. 1890 - 0004 Expiration: 10-31-2007

PR/Award #:S349A050047

## SECTION B - Budget Information (See Instructions, Use as many pages as necessary.)

Actual expenditures for Year 2 were slightly higher than the budgeted expenditures. Expenditures were lower than anticipated in Year 1 and unexpended funds from Year 1 were spent in Year 2. This is largely due to the fact that all directors and teachers in Group A and B received their \$1,000 in books and materials in Year 2. Travel expenses across the state to evaluate all participating children were higher than expected during Year 2. We originally planned and attempted to hire Field Evaluators in each CCR&R district. Due to the lack of qualified individuals to perform the job in some regions, we are using students from UTC to travel across the state to complete the evaluation process.

During Year 2 our Evaluation Director left Project REEL to pursue a job opportunity in another state. At this point it was deemed necessary to split her duties among two individuals that were already familiar with those responsibilities. The Coordinator of Children's Assessment became a full time position and the Data Manger became Coordinator of Teacher Assessments and Evaluation. We were able to take the Evaluation Directors salary and the savings from the Field Evaluators across the state to fund these two positions. Because this was a change to key personnel we sought and obtained approval form the Department of Education.

The grant's match money in Year 2 was also lower than originally budgeted. The main reason for this decreased match amount was due to the elimination state-wide model demonstration sites, the elimination of the videos, the elimination of the volunteer training in each site, and a smaller discount on materials than was originally budgeted. We expect to see a greater increase in match funding during Year 3.

#### **FINANCIAL STATUS REPORT**

	. Federal Agency and Organizantional Element   2. Federal Grant or Other Identifying Number Assigned							OMB Approva	I Page	of
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Harriet S. Neely, Grant Accountant 423-425-4530										
	thorized Certifying Official	/ //				ort Submitted	-			
December 3, 2007										

Standard Form 269 (Rev. 7-97)



OMB No. 1890 - 0004 Expiration: 10-31-2007

PR/Award #:

**SECTION C - Additional Information** (See Instructions. Use as many pages as necessary.)

Project REEL partners are Statewide Child Care Resource and Referral (CCR&R) Network, Signal Centers, and the Siskin Children's Institute and they will not change during Year 3.

PR/Award # (11 characters): S349A050047

**SECTION A - Performance Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

**1. Project Objective** [ ] Check if this is a status update for the previous budget period.

ECEPD 1.1 Performance Measure	Measure Type	Quantitative Data  Actual Performance Data			
The percent of preschool-aged children participating in ECEPD	GPRA				
projects who achieve significant learning gains on the Peabody Picture Vocabulary Test-III.*		Raw Number	Ratio	%	
*A standard score increase of 4 or more points between pre and post-test		69	29/69	42	

#### Data for 1:

Data were collected on a maximum of 569 children (the number varied by the type of assessment) in the Fall of 2006 and 713 children in the Spring of 2007. We had permission to assess 824 children as of the end of Spring 2007, but some moved to different settings or were unavailable when their setting was scheduled for assessment.

Assessments used and results of each are reported below.

**Peabody Picture Vocabulary Test (PPVT)**. Receptive vocabulary. A Standard Score of 100 is average, and our goal is for the children to be performing at age level (Standard Score of 85 or above). Results are reported below.

**Peabody Picture Vocabulary Test (PPVT)**. Receptive vocabulary. A Standard Score of 100 is average, and our goal is for the children to be performing at age level (Standard Score of 85 or above). For all children assessed in the Fall of 2006 (N=558), the average standard score was 97.07 (SD = 16.12), but it significantly differed by group, F(1,556) = 6.90, p<.01, partial eta<sup>2</sup> = .01. Group B children (N = 324, M = 98.59, SD = 15.87) outscored Group A children (N = 234, M = 94.97, SD = 16.27). By Spring 2007, the group difference had disappeared. Overall, the average score for the 711 children assessed in Spring 2007 was 96.47 (SD = 15.73).

The results for children who were repeatedly tested (N=338) are reported below.

Fall 06: *M* = 98.79 (16.28) Spring 07: *M* = 100.22 (14.45)

$$F(1,337) = 4.25, p < .05, partial \eta^2 = .01, power = .54$$

Improvement: M = 1.43 (12.74)

36.4% of all children had a SS increase of 4+ points from Fall to Spring

Dividing those children into Group A and B, we found a significant time by group interaction, with Group A children improving significantly more over the course of the year than Group B children. These results are displayed below.

Group N		Fall 2006	Spring 2007	% w/4 point SS increase
A	131	97.37 (16.99)	100.88 (14.79)	45.8%
B	200	99.94 (15.89)	100.25 (14.04)	31.0%
	by Year Effect	F(1,329) = 4.99, p	$\rho < .05$ , partial eta <sup>2</sup> = .02	2, power = .61
	Effect	F(1,329) = 7.12, p	$\rho < .01$ , partial eta <sup>2</sup> = .03	22, power = .76

<sup>\*</sup>Examining only kindergarten-eligible children in Group A (those with 6 months of exposure to a teacher), 42% had increases of 4 or more standard score points.

According to GPRA guidelines, we separated children into two age groups, examining those who would be eligible for kindergarten the following Fall versus those who were younger. We then examined the percentage of children who obtained Standard Scores of 85 or above, reflecting age-appropriate performance.

		<u>Fall 06</u>	Spring 07
# with Stand	ard Score 85 or above	285 (82%)	302 (87%)
By age -	Older	165 (86%)	173 (91%)
	Younger	120 (77%)	129 (83%)
By group -	A	106 (79%)	121 (90%)
	В	174 (85%)	177 (86%)

<sup>\*</sup>Examining Group A only kindergarten-eligible children, 87% had standard scores of 85 or above (60/69).

PR/Award # (11 characters): S349A050047

**SECTION A - Performance Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

**2. Project Objective** [ ] Check if this is a status update for the previous budget period.

ECEPD 1.2 Performance Measure	Measure Type	Quantitative Data			
The percent of preschool-aged children participating in ECEPD	GPRA	Actual Performance Data			
projects who demonstrate age-appropriate oral language skills as measured by the Peabody Picture Vocabulary Test-III.*		Raw Number	Ratio	%	
*A standard score of 85 and above		69	60/69	87	

#### Data for 2:

Data were collected on a maximum of 569 children (the number varied by the type of assessment) in the Fall of 2006 and 713 children in the Spring of 2007. We had permission to assess 824 children as of the end of Spring 2007, but some moved to different settings or were unavailable when their setting was scheduled for assessment.

Assessments used and results of each are reported below.

**Peabody Picture Vocabulary Test (PPVT)**. Receptive vocabulary. A Standard Score of 100 is average, and our goal is for the children to be performing at age level (Standard Score of 85 or above). Results are reported below.

**Peabody Picture Vocabulary Test (PPVT)**. Receptive vocabulary. A Standard Score of 100 is average, and our goal is for the children to be performing at age level (Standard Score of 85 or above). For all children assessed in the Fall of 2006 (N=558), the average standard score was 97.07 (SD = 16.12), but it significantly differed by group, F(1,556) = 6.90, p<.01, partial eta<sup>2</sup> = .01. Group B children (N = 324, M = 98.59, SD = 15.87) outscored Group A children (N = 234, M = 94.97, SD = 16.27). By Spring 2007, the group difference had disappeared. Overall, the average score for the 711 children assessed in Spring 2007 was 96.47 (SD = 15.73).

The results for children who were repeatedly tested (*N*=338) are reported below.

Fall 06: M = 98.79 (16.28) Spring 07: M = 100.22 (14.45) F(1,337) = 4.25, p < .05, partial  $\eta^2 = .01$ , power = .54 Improvement: M = 1.43 (12.74)

36.4% of all children had a SS increase of 4+ points from Fall to Spring

Dividing those children into Group A and B, we found a significant time by group interaction, with Group A children improving significantly more over the course of the year than Group B children. These results are displayed below.

Group N			Fall 2006	Spring 2007	% w/4 point SS increase				
	A 131 B 200		97.37 (16.99) 99.94 (15.89)	100.88 (14.79) 100.25 (14.04)	45.8% 31.0%				
	Б	200	99.94 (13.69)	100.23 (14.04)	31.070				
Time by Year Effect		y Year Effect	$F(1,329) = 4.99, p < .05, partial eta^2 = .02, power = .61$						
	Time I	Effect	$F(1,329) = 7.12, p < .01, partial eta^2 = .02, power = .76$						

<sup>\*</sup>Examining only kindergarten-eligible children in Group A (those with 6 months of exposure to a teacher), 42% had increases of 4 or more standard score points.

According to GPRA guidelines, we separated children into two age groups, examining those who would be eligible for kindergarten the following Fall versus those who were younger. We then examined the percentage of children who obtained Standard Scores of 85 or above, reflecting age-appropriate performance.

		<u>Fall 06</u>	Spring 07
# with Standa	ard Score 85 or above	285 (82%)	302 (87%)
By age -	Older	165 (86%)	173 (91%)
	Younger	120 (77%)	129 (83%)
By group -	A	106 (79%)	121 (90%)
	В	174 (85%)	177 (86%)

<sup>\*</sup>Examining Group A only kindergarten-eligible children, 87% had standard scores of 85 or above (60/69).

PR/Award # (11 characters): S349A050047

**SECTION A - Performance Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

**3. Project Objective** [ ] Check if this is a status update for the previous budget period.

ECEPD 1.3 Performance Measure	Measure Type	Quantitative Data		
The number of letters ECEPD children can identify as measured by	GPRA	Actual Performance Data		
the PALS Pre-K Upper Case Alphabet Knowledge subtask.		Raw Number	Ratio	%
		69	66	16.45

#### Data for 3:

Three children were not assessed due to there unavailability during the scheduled assessment period.

## Phonological Awareness Literacy Screening (PALS Pre-K)

## PALS Upper Case Alphabet

The PALS Upper Case Alphabet test presents all 26 uppercase letters in random order; thus scores range from 0 to 26. In Fall 2006, 374 children were assessed, with average scores of 10.34 letters correct (SD = 9.7). In Spring 2007, 701 children were assessed, averaging 12.10 letters correct (SD = 10.2).

For GPRA purposes, all Fall 2007 Kindergarten-eligible children of Group A (fully trained) ECEs who had been exposed to a trained teacher for 6 months were examined. Their average score (number of letters recognized) in the Fall was 9.98 (SD = 9.54, n = 97). In the Spring, that improved to 16.13 (SD = 9.313, n = 128).

\*For the 66 kindergarten-eligible Group A children who were assessed in both Fall 2006 and Spring 2007, the mean score was somewhat higher (16.45).

For children tested in both Fall and Spring, there was significant improvement overall but no significant group differences or an interaction between time and group (see below).

	ECE Training		Std.	
	Group	Mean	Deviation	N
Fall 06	A	10.33	9.900	106
	В	11.86	9.974	163
	Total	11.26	9.955	269
Spring 07	A	14.76	9.837	106
	В	17.06	9.442	163
	Total	16.16	9.647	269

Time x Group: F(1,267) = .921, ns, partial  $\eta^2 = .00$ , power = .16 Time: F(1,267) = 144.77, p < .001, partial  $\eta^2 = .35$ , power = 1.00 Group: F(1,267) = 2.76, ns, partial  $\eta^2 = .01$ , power = .38

In Fall 2006, 50.3% of the children eligible for kindergarten were performing below the expected range; by Spring 2007, this was reduced to 29.1%

PR/Award # (11 characters): S349A050047

**SECTION A - Performance Objectives Information and Related Performance Measures Data** (See Instructions. Use as many pages as necessary.)

**4. Project Objective** [ ] Check if this is a status update for the previous budget period.

ECEPD 2.1 Performance Measure	Measure Type	Quantitative Data		
The teachers' average score on the ELLCO subpart Literacy	GPRA	<b>Actual Performance Data</b>		
Environment Checklist measured after the teacher has implemented the intervention in the classroom.		Raw Number	Ratio	%
		30	26	28.77

#### Data for 4:

## **ELLCO**

ELLCOs were not completed on 4 classrooms because some Head Start Programs closed earlier than expected and the Project REEL Specialist, who should have conducted some of the observations, left her position before completing all observations and her replacement started too late to collect spring assessments.

During Year 2, the Project REEL Specialists completed the Early Language and Literacy Classroom Observation (ELLCO) in participating preschool classrooms. Our overall goal is to have 100% of the teachers score above a 3.5, which is classified as high quality support During Spring 2006 we had a mean of 3.13 with 40% of classrooms categorized as providing high quality support, by Spring 2007 that had increased to 3.78 with 64 % of all classrooms providing high quality support. Fully trained teachers (Group A = 73%) were more likely than partly trained teachers (Group B = 58%) to be providing high quality support in the Spring of 2007. On the Literacy Activity Rating Scale our goal is to be at 100%. In Spring 2006 the overall score was 48%, and had improved to 61.3% by Spring 2007. Averages on the ELLCO subscales during Spring 2006 and Spring 2007 are compared below.

#### **Classroom Observation Percent Score (sum/total possible)**

Spring 2006: N = 83 M = 62.67% (13.48) Spring 2007: N = 59 M = 75.67% (14.21)

## **Literacy Environment Checklist Percent Score (sum/total possible)**

Spring 2006: N = 83 M = 54.10% (17.26) Spring 2007: N = 60 M = 68.98% (14.70)

**Literacy Activity Rating Scale Percent Score (sum/total possible)** 

Spring 2006: N = 82 M = 42.57% (25.31) Spring 2007: N = 59 M = 61.33% (21.12)

When we examined only those ECEs with ELLCO scores in both Fall and Spring (n = 36) using Repeated Measures ANOVAs comparing Group A and Group B, we found significant improvement for all ELLCO subscales, but no Group differences or time by Group interactions. The ANOVA results for the effect of time are reported below.

Subscale	F	(df)	p	partial	l eta <sup>2</sup>
Classroom Observation		28.46	(1,34)	.001	.46
Literacy Environment Ch	ecklist	35.14	(1,34)	.001	.51
Literacy Activity Rating S	Scale	16.69	(1,33)	.001	.34

Below, our results are compared to those from the NEQRC/LEEP data, as required by GPRA. We report the percentage of our ECEs who perform AT OR ABOVE THE MEAN of the NEQRC/LEEP data. Group A ECEs scored slightly, but not significantly, higher than Group B (partly trained) ECEs.

Classroom Observation Scale	% at/above N	NEQRC (3.15) Means
Group A:	23/26 = 88%	3.91 (.78)
Group B:	24/34 = 71%	3.69 (.65)
Overall:	47/59 = 80%	3.78 (.71)

# Literacy Environment Checklist Sum% at/above NEQRC (21.57) MeansGroup A:24/26 = 92%28.77 (5.85)Group B:28/34 = 82%27.91 (6.22)Overall:52/60 = 87%28.28 (6.03)

## Literacy Activity Rating Scale Sum % at/above NEQRC (5.80) Means

Group A:	23/26 = 88%	8.85 (2.68)
Group B:	23/33 = 70%	7.85 (2.39)
Overall:	46/59 = 78%	8.29 (2.55)